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# Swaram Specifications for derivation of Jatai and Ghanam

## Basic Swarams:

The basic swarms are udAttam (not marked), anudAttam and Swaritam.

Dheerga Swaritam with double line is an extension of Swaritam only.

When Swaritam becomes Dheerga Swaritam.

### At any place in a vedic statement a long letter has Swaritam but followed by a Conjunct consonant

**Examples**

|  |  |
| --- | --- |
| aÉýhÉÉlÉÉÿliuÉÉ aÉýhÉmÉþÌiÉóè | ÎxjÉýUæ-U…¡æûÿ-xiÉÑ¸ÒýuÉÉóè |
| lÉqÉÉåý ÌlÉwÉýÌ…¡ûhÉåÿ xiÉåýlÉÉlÉÉÇý mÉiÉþrÉåý | lÉqÉþ AÉurÉÉýÍkÉlÉÏÿprÉÉå |
| lÉqÉÉåý uÉëÉiÉåÿprÉÉå | lÉqÉÉåý UjÉåÿprÉÉåý |
| lÉqÉýÈ xÉålÉÉÿprÉ | MüýqÉÉïUåÿprÉ¶É uÉÉåý |

### At the end of a vedic statement or padam which has

**A long letter ending with Swaritam (long letter, visaraga letter or long anuswaram or a halant) Examples**

|  |  |
| --- | --- |
| xÉWûxÉëÉý¤ÉÉrÉþ qÉÏýRÒûwÉåÿ | | lÉÉþiÉiÉÉrÉ kÉ×ýwhÉuÉåÿ | |
| AuÉ þmÉý¶ÉÉ¨ÉÉÿiÉç | AuÉþ mÉÑýUxiÉÉÿiÉç | AuÉÉå¨ÉýUÉ¨ÉÉÿiÉç | | mÉëcÉÉåýSrÉÉÿiÉ |
| AýxqÉÍ³ÉuÉþmÉliÉÑý xÉålÉÉÿÈ | iÉÎlqÉý§É LþÌiÉ mÉýÍjÉÍpÉþ SåïuÉýrÉÉlÉæÿÈ |
| uÉÉýrÉÑ lÉï¤Éþ§É-qÉýprÉåþÌiÉý ÌlÉwšÉÿÇ | mÉÔýwÉÉ UåýuÉirÉluÉåþÌiÉý mÉljÉÉÿÇ | |

**short anuswaram letter Examples**

|  |  |
| --- | --- |
| AuÉþuÉý£üÉUÿÇ | AuÉþ ´ÉÉåýiÉÉUÿÇ |  AuÉþSÉýiÉÉUÿÇ |  xÉËUýwÉÈ mÉÉþiÉÑýlÉ£üÿÇ || | lÉÏýcÉÉiÉÇkÉþ¤rÉiÉý xÉ³É zÉÑwMüÿÇ |  GÌwÉþÍpÉý-xxÉÇpÉ×þiÉýóèý UxÉÿÇ | |

### A long letter with visargam or anuswaram which forms a conjunct consonant with followin letter

**Examples**

|  |  |
| --- | --- |
| E–pÉÉprÉÉÇÿ SåuÉ xÉÌuÉiÉÈ  mÉë–eÉÉrÉÉÇÿ oÉëÉ¼–hÉóè WûÎliÉþ  rÉÉå SåýuÉÉlÉÉÿÇ mÉÑýUÉåÌWûþiÉÈ | | xÉÉ qÉÉÇÿ qÉåýkÉÉ, AÉqÉÉÇÿ qÉåýkÉÉ  iÉåwÉÉÿÇ ÆuÉÈ mÉÑýUÉå,  xÉqÉÉlÉ sÉÉå–MüiÉÉÿÇ ÆrÉÎliÉ |

### Dheerga Swaritam after short letters: (08/02/2020)

**Case 1 When th is added after n.**

A hrasva (short) letter is followed a joint letter (conjunct consonant) through a rule and that short letter acquires dheerga swaritam but reflected in the next letter during rendering.

Let us explain this with a direct example:

When **“n”**  is followed by **sa,Sa,Sha,** an **‘th’** is added to smoothen the flow of letters as per Consonant Sandhi rule. When the word before ‘n’ is a short letter(hrasva) and it get a swaritam, it is difficult to render it with the following joint letter (conjuct consonants). The letter is extended to dheerga swaritam, since it is difficult to elongate a short letter, the effect of dheerga swaritam is extended the following letter which is  **‘n’.**

|  |  |
| --- | --- |
| iÉÎxqÉÿljxÉÑmÉýhÉÉåï qÉþkÉÑýM×üiÉç MÑüþsÉÉýrÉÏ | ÎxqÉ, is a short letter.  It is followed by nth, the effect of extending is on ‘**n’.** Though ismi is marked with swaritam and it has acquired dheerga swaritam, the real effect of rendering will be like  iÉÎxqÉlÉçÿ, |
| iÉÎxqÉÿljÉç xÉýuÉïÇ mÉëÌiÉþÌ¸iÉÇ | Same as above |
| AÉýuÉåýzÉrÉþ-Í³ÉuÉåýzÉrÉÿlÉç-jxÉÇýÆuÉåzÉþlÉý- | Here the effect of the dheerga swaritam of **‘ya’** will be extended to **‘n’.** |

**Case 2 Letters gya after short anuswaram**

xÉÿÇ¥ÉýmrÉqÉÉþlÉÉiÉç , xÉÿÇ¥ÉýmÉþlirÉæýlSìÈ , xÉÿÇ¥ÉýmÉrÉþÎliÉ

These words appear in the middle of a mantra. The prefix ‘**saM’** is a short anuswaram. But it is followed by a conjunct consonant **‘j’ and ‘gya’.** It would be difficult to recite only swaritam of ‘saM’ and move to jgya; so ‘saM’ acquires dheerga swaritam. Specific rule covering such instance is being referred to in grammar/vedic books.

### Swaritam before Swarabhakti :

When Swarabhakti of **r.** appears before **s,S,Sh;** the **letter previous to** r. **cannot be a swaritam** if the letter starting with s,S and Sh are simple consonants. The r. is taken as a Swarayukta akshara (normal consonant)

|  |
| --- |
| pÉÉ–ÌaÉlÉóèþ xÉ–liÉqÉjÉÉþ pÉÉ–aÉÇ ÍcÉMüÐþUç.wÉÌiÉ |
| xÉýmiÉ uÉæ zÉÏþUç.wÉýhrÉÉÿÈ mÉëÉýhÉÉÈ | |
| iÉålÉý MüÉåþÅWïûÌiÉý xmÉÎ®ïþiÉÑÇ |

**The letters marked in yellow are dheerga letters with swaram followed by a conjunct consonant (joint letter). The letters do not acquire dheerga swaritam.**

**When the letter** Uç., ர், ª is followed by letters of class (xÉ , ஸ , s ), (wÉ, ஷ, r), (zÉ, **Ÿ**, q), W, ஹ t) or (G , *ரு*, E ), as a **rule the ‘r’ is extended to double its maatra value..instead of half. This representation of ‘r’ is called Swarabhakti in technical terms.   
Swara bhakti treated as Swarayukta akSharam only and as a rule does not get Dheerga Swaritam.**

**Exception to 1.1.5 above**

TS 6.3.7.2 the following statement appears twice in this Panchati. The ‘mA’ is a dheerga letter with swaritam followed by ‘r’ but is **not followed** by a **consonant of ‘Sha’** but a **conjunct of ‘ti’ with ‘Sh**’.   
The Dheergam swaritam is retained.

**If the ‘r’ is followed by a Conjunct Consonant of sa,Sa or Sha, ‘r’ is not treated as swarabhakti.**

xÉÇ qÉÉÿÌ¹ï , ஸம் மா**‡**ர்ஷ்டி , sI ix˜ªræy–

## Consideration in Programming

The program should take all the Dheerga Swaritams as Swaritams intially and derive the entire swaram formation and then apply the Dheerga Swarita rules. In a running Vedic Statement many of the Dheerga Swaritam in padam becomes Swaritam in Vaakyam, Kramam, Jatai or Ghanam.   
Also care should be taken to mark dheerga swaritam for letters which acquire swaritam due to Swara rules and one of the rules mentioned above gets applied and it derives a Dheerga Swaritam.

## Basic flow of Swaram

### All padams are in udAttam in Pada Paatam:

All the Padams will be represented together with Sandhis but will retain their udAttam with no change in Swaram. This rule holds good for Krama,Jatai and Ghana Paatam.

Rudra Ghanam Anuvaakam 10 Statement 10

10. mA | BeH | mA | **qÉÉ | pÉåÈ | qÉÉ |)**

Jatai - mA Ber Ber mA mA BeH |

qÉÉ pÉåUç pÉåUç qÉÉ qÉÉ pÉå: |

Ghana- mA Ber Ber mA mA Ber mA mA Ber mA mA Ber mA |

qÉÉ pÉåUç pÉåUç qÉÉ qÉÉ pÉåUç qÉÉ qÉÉ pÉåUç qÉÉ qÉÉ pÉåUç qÉÉ |

All are udAttams; only Visarga Sandhi rule of BeH which becomes ‘r’ since visarga sound is ‘ae’ is applied. No Other Sandhi. No Swaram for all Padams since they are all original udAttams.

### All Padams are fully marked in anudAttam

All the Padams will be represented together with Sandhis but will retain their audAttam as in Pada Paatam. The rule holds good for Krama, Jatai and Ghana Paatam.

**Rudram – Anuvaakam 1 – Statement 2**

2. teq | ruqdraq | (iÉå– | Â––Sì– )

Jatai - teq ruqdraq ruqdraq teq teq ruqdraq |

iÉå– Â–Sì– Â–Sì– iÉå– iÉå– Â––Sì–

**Ghanam** - **Statement 33**. naqH | ruqdraq | mRuqDaqyaq |

(**lÉ–È | Â–Sì– | qÉ×–Qû–rÉ– |)**

noq ruqdraq ruqdraq noq noq ruqdraq mRuqDaqyaq mRuqDaqyaq ruqdraq noq noq ruqdraq mRuqDaqyaq |

lÉÉå– Â–Sì– Â–Sì– lÉÉå– lÉÉå– Â–Sì– qÉ×–Qû–rÉ– qÉ×–Qû–rÉ– Â–Sì– lÉÉå– lÉÉå– Â–Sì– qÉ×–Qû–rÉ– |

Both Padam marked in full anudAttam. Visargam ‘naH’ becomes no.  
No vowel Sandhi. No Swaram change. Recited in full anudAttam. Apply same rule for Ghanam also in Statement 33.

### Padams with full anudAttam or more than one anudAttam

The Padams will be rendered in anudAttam in the beginning of a krama, jatai or ghana Vaakyam till they occur or intervened by udAttam; after this the pracaya anudattam will be rendered as udAttam in a krama, jatai or Ghana Vaakyam.

**Example 1:**

11. teq | aqstuq | dhanva#ne | (**iÉå– | A–xiÉÑ– | kÉluÉþlÉå |)**

teq aqstvaqstuq teq teq aqstuq dhanva#neq dhanva#ne astu te te astuq dhanva#ne |

iÉå– A–xiuÉ–xiÉÑ– iÉå– iÉå– A–xiÉÑ– kÉluÉþlÉå– kÉluÉþlÉå AxiÉÑ iÉå iÉå AxiÉÑ– kÉluÉþlÉå |

First two padams are in full anudAttam. Astu+astu becomes asvastu in Sandhi.

Jatai will be in full anudAttam “teq aqstvaqstuq teq teq aqstuq “

iÉå– A–xiuÉ–xiÉÑ– iÉå– iÉå– A–xiÉÑ–

Ghanam will be rendered in anudAttam till aqstuq now follows ‘dha’ in udAttam, then regular flow will follow. Padams in full anudAttam in Padam will be rendered in udAttam in Krama,Jatai and Ghana Vaakyam.

**Example 2: Rudra Anuvaakam 1**

84. aqvoqcaqt | aqdhiqvaqktA | praqthaqmaH |

**A–uÉÉå–cÉ–iÉç | A–ÍkÉ–uÉ–£üÉ | mÉë–jÉ–qÉÈ**

Jatai - aqvoqcaq daqdhiqvaqktA &dhi#vaqktA vo#ca davoca dadhivaqktA |

A–uÉÉå–cÉ– S–ÍkÉ–uÉ–£üÉ ÅÍkÉþuÉ–£üÉ ÅuÉÉåþcÉ SuÉÉåcÉ SÍkÉuÉ–£üÉ

Ghanam - aqvoqcaq daqdhiqvaqktA &dhi#vaqktA vo#ca davoca dadhivaqktA pra#thaqmaH pra#thaqmo a#dhi vaqktA vo#ca davoca dadhivaqktA pra#thaqmaH |

A–uÉÉå–cÉ– S–ÍkÉ–uÉ–£üÉ ÅÍkÉþuÉ–£üÉ ÅuÉÉåþcÉ SuÉÉåcÉ SÍkÉuÉ–£üÉ mÉëþjÉ–qÉÈ mÉëþjÉ–qÉÉå AþÍkÉ uÉ–£üÉ ÅuÉÉåþcÉ SuÉÉåcÉ SÍkÉuÉ–£üÉ mÉëþjÉ–qÉÈ |

Here first padam is full anudAttam; second one three anudAttam with last akshara udAttam. So till ktA is reached all letters are rendered in anudAttam as in Pada Paatam.

As per consonant Sandhi ‘t’ becomes ‘d’ before vowel. With a it becomes ‘da’ but will be not swaram change as all are anudAttam as per Pada Paatam.

## General Logic:

If an udAttam as per Pada Paatam comes in, the previous letter shall be anudAttam and the following letter shall be Swaritam.

But if the following letter is udAttam, the next possible letter that can take swaritam will be marked in Swaritam.

After udAttam, an anudAttam which is specific to that Padam follows,   
it will ~~not acquire Swaritam~~ but retain its anudAttam.

The expansion of this logic requires detailed study of Padams and Swaram rules which are detailed in the following Sections.

# Basic types of Padams

**All the rules given below are subject to change when a Sandhi occurs   
since Swaram of the constituent letters change as per Sandhi Rules or application of Pracaya.**

**Note - @ symbol used for anudAttam, # for swaritam and $ for dheerga Swaritam in the following tables.**

**Recent version of Baraha uses ‘q’ for anudAttam, so if @ is found in any file repalce with ‘q’**

## Padam with No Marking; normally single letters (with visarga,halant ending also)

|  |  |
| --- | --- |
| **Marking in Pada Paatam** | **udAttam** |
| **Prime Swaram** | **This single letter.  Jeeva Swaram as per Classical Ref.** |
| **Examples of Padams** | **mA,tat, tvam, Sam, yat , A (eti), yAH**  **qÉÉ, iÉiÉç , iuÉqÉç , zÉqÉç, rÉiÉç , AÉ, rÉÉ:** |
| **Conversion to Vaakyam** | **always udAttam in Vaakyam**;  When the halant in these words join another vowel to form a Consonant, this new consonant may acquire swaram.  If another letter with swarm combines with this UdAttam, it will remain udAttam Swaram normally. |
| **Swaram Rules in Vaakyam** | 1) Previous Possible letter is anudAttam,  2) Following Possible letter is Swaritam |
| **Exceptions** | Words like **mA** may be **marked in anudAttam** based on Vaakyam in Pada Paatam. This udAttam may change subject to Sandhi Rules.  Sandhi of this udAttam with following anudAttam can give derived Swaritam. (see Section on Swaritam) |

## Single letters with marking (with visarga,halant ending also)

|  |  |
| --- | --- |
| **Marking in Pada Paatam** | **anudAttam** |
| **Prime Swaram** | **This single letter** |
| **Examples of Padams** | **mE@, tE@, tvA@, na@H, va@H, mA@, ca@,**  **qÉå– , iÉå–, iuÉÉ– , lÉ–È,** uÉ–È, **qÉÉ–, cÉ–** |
| **Conversion to Vaakyam** | 1. Rendered with anudAttam in Vaakyam at the start of a Ruk   2. Rendered as udAttam in the middle of a Ruk |
| **Swaram Rules in Vaakyam** | can acquire Swaritam or anudAttam based on flow of Vaakyam |
| **Exceptions** | Variance may occur due to Sandhi rules |

## Padam with two letters

### First anudAttam & Second udAttam

|  |  |
| --- | --- |
| **Marking in Pada Paatam** | **first letter anudAttam** |
| **Prime Swaram**  **Jeeva Swaram** | **The first letter in anudAttam**  **Classical Method the udAttam(Second)** |
| **Examples of Padams** | Si@vA, u@ta, a@sau  **ÍzÉ–uÉÉ, E–iÉ , A–xÉÉæ** |
| **Conversion to Vaakyam** | first always anudAttam and second will be udAttam |
| **Swaram Rules in Vaakyam** | 1) Following Possible aksharam is Swaritam |
| **Exceptions** | Subject to Sandhi Rules |

### both letters marked as anudAttam

|  |  |
| --- | --- |
| **Marking in Pada Paatam** | **Both in anudAttam** |
| **Prime Swaram** | **First anudAttam** |
| **Examples of Padams** | ru@dra@, a@stu@, ku@ru@, a@sya@ e@na@m  **Â–Sì– | A–xiÉÑ– | MÑü–Â– A–xrÉ– , L–lÉ–qÉç** |
| **Conversion to Vaakyam** | 1. Rendered with anudAttam in Vaakyam at the start of a Ruk   2. Rendered as udAttam in the middle of a Ruk |
| **Swaram Rules in Vaakyam** | Both these letters **can** acquire Swaram, First one as Swaritam to support previous anudAttam and Second as anudAttam to support upcoming Swaritam. |
| **Exceptions** | Sandhi Rules |

### first as udAttam and Second one as Swaritam

|  |  |
| --- | --- |
| **Marking in Pada Paatam** | **first as udAttam** and Second one as Swaritam |
| **Prime Swaram** | **the Swaritam**  **the first occurring udAttam in Classical Text** |
| **Examples of Padams** | nama#H, viSvA$, hastE$,maya#H,  **lÉqÉþÈ, ÌuÉµÉÉÿ | WûxiÉåÿ | qÉrÉþÈ** |
| **Conversion to Vaakyam** | 1. Rendered without Change |
| **Swaram Rules in Vaakyam** | Swaram is retained as it is.  First udAttam does not acquire Swaram. The Swaritam can acquire anudAttam to support following letter. |
| **Exceptions** | Sandhi Rules and application of Pracayam |

## Padam with three letters with first anudAttam,udAttam, Swaritam

|  |  |
| --- | --- |
| **Marking in Pada Paatam** | First anudAttam, second udAttam and third Swaritam |
| **Prime Swaram/Jeeva Swaram** | The first anudAttam is Prime  The udAttam is Jeeva Swaram as per Classical method |
| **Examples of Padams** | ga@NAnA$m , ma@nyavE$. ta@nuvA$, su@manA$H, a@Bita#H mI@DhuShE$, dhRu@ShNavE$,  **aÉ–hÉÉlÉÉÿqÉç , qÉ–lrÉuÉåÿ , iÉ–lÉÑuÉÉÿ ,  xÉÑ–qÉlÉÉÿ**È , **A–ÍpÉiÉþÈ qÉÏ–RÒûwÉåÿ ,  kÉ×–whÉuÉåÿ** |
| **Conversion to Vaakyam** | 1. Rendered without Change |
| **Swaram Rules in Vaakyam** | 1. Rendered without Change. But the Swaritam of the third letter can acquire anudAttam to support a following Swaritam |
| **Exceptions** | Sandhi Rules |

## Padam with three letters or more letters

### all marked in anudAttam

|  |  |
| --- | --- |
| **Marking in Pada Paatam** | **All in anudAttam** |
| **Prime Swaram/Jeeva Swaram** | **The first letter** |
| **Examples of Padams** | mRu@Da@ya@, a@vO@ca@t, va@dA@ma@si@  **qÉ×–Qû–rÉ– | A–uÉÉå–cÉ–iÉç | uÉ–SÉ–qÉ–ÍxÉ– |** |
| **Conversion to Vaakyam** | 1. Rendered with anudAttam in Vaakyam at the start of a Ruk   2. Rendered as udAttam in the middle of a Ruk |
| **Swaram Rules in Vaakyam** | normally letters can acquire Swaram. Generally first one as Swaritam last one as udAttam normally to support previous anudAttam or following Swaritam. |
| **Exceptions** | Sandhi Rules |

### all except last letter marked in anudAttam

|  |  |
| --- | --- |
| **Marking in Pada Paatam** | **all except last letter marked in anudAttam** |
| **Prime Swaram** | **The last marked anudAttam**.  The last letter **udAttam** in Classical method |
| **Examples of Padams** | pra@tha@maH, a@ru@NaH, ka@vI@nam  **mÉë–jÉ–qÉÈ, A–Â–hÉÈ , Mü–uÉÏ–lÉÉqÉç |** |
| **Conversion to Vaakyam** | 1. Rendered with anudAttam in Vaakyam at the start of a Ruk   2. Rendered as udAttam in the middle of a Ruk |
| **Swaram Rules in Vaakyam** | Letters marked in anudAttam **before prime anudAttam** can acquire Swaram. Following possible letter will be Swaritam |
| **Exceptions** | Sandhi Rules |

### Has a set of anudAttam and one Swaritam

|  |  |
| --- | --- |
| **Marking in Pada Paatam** | **Has a set of anudAttam and a Swaritam** |
| **Prime Swaram** | The **last of the Anudattam** marked.  As per Scholars, the **UdAttam** that comes after the last anudAtta, in Classical method. |
| **Examples of Padams** | Si@vata#mA, su@ma@~ggala#H , a@va@sarpa#ti sa@ha@srA@kShAya#  **ÍzÉ–uÉiÉþqÉÉ , xÉÑ–qÉ–…¡ûsÉþÈ ,  A–uÉ–xÉmÉïþÌiÉ , xÉ–Wû–xÉëÉ–¤ÉÉrÉþ** |
| **Conversion to Vaakyam** | 1. Rendered with anudAttam in Vaakyam at the start of a Ruk if more than one anudAttam.   2. Rendered as udAttam in the middle of a Ruk |
| **Swaram Rules in Vaakyam** | 1. any of the anudAttam marked before the Prime anudAttam can acquire swaram in Vaakyam.  2. The letters that come after Swaritam, marked as udAttam in Vaakyam (**ekaSruti part**) can acquire swaram to Support following Swaritam generally |
| **Exceptions** | Sandhi Rules or application of Pracayam |

### Swaritam comes as a Second letter

|  |  |
| --- | --- |
| **Marking in Pada Paatam** | **Second letter is Swaritam** |
| **Prime Swaram** | This Swaritam  First occurring **udAttam before this Swaritam** in Classical method. |
| **Examples of Padams** | nIla#grIvAH ,dhanva#naH saha#srAkSha , bANa#vAn **lÉÏsÉþaÉëÏuÉÈ, kÉluÉþlÉÈ , xÉWûþxÉëÉ¤É, oÉÉhÉþuÉÉlÉç** |
| **Conversion to Vaakyam** | First letter will be always udAttam.  Rendered as it is in Vaakyam. |
| **Swaram Rules in Vaakyam** | Rendered as it is in Vaakyam. The letters that come after Swaritam marked in udAttam, (ekaSruti part), can acquire swaram to Support following Swaritam generally |
| **Exceptions** | Sandhi Rules or application of Pracayam |
|  |  |

### Swaritam comes in the first letter

|  |  |
| --- | --- |
| **Marking in Pada Paatam** | **First letter is Swaritam** |
| **Prime Swaram** | **This Swaritam** |
| **Examples of Padams** | vyu#ptakESAya trya#mbakam  **urÉÑþmiÉMåüzÉÉrÉ | §rÉþÇoÉMüqÉç** |
| **Conversion to Vaakyam** | Rendered as it is in Vaakyam. |
| **Swaram Rules in Vaakyam** | The letters that come after Swaritam marked in udAttam, (ekaSruti part), can acquire swaram to Support following Swaritam generally |
| **Exceptions** | Generally not affected by Sandhi Rule since such words are out of one or more padams with Sandhi involved. |

## Padams with only anudAttam and Swaritam

These are words with special mention in Sanskirt Grammar. These are Padams/words with the last letter as conjunct consonants of letter **‘y’,’v’, ‘l’,**. These **Padans have anudAttam before Swaritam** and no udAttam is marked in Pada Paatam.

|  |  |
| --- | --- |
| **Marking in Pada Paatam** | **All initial letters in udAttam and the last letter as Swaritam** |
| **Prime Swaram** | **This Swaritam** |
| **Examples of Padams** | yA@tu@dhA@nya#, Sa@ra@vyA#,  rA@ja@nya#H, sEnAqnyE$, vI@ryA#ya, ka@lvA$H (ca mE)  **rÉÉ–iÉÑ–kÉÉ–lrÉþÈ | zÉ–U–urÉÉÿ |** UÉ–eÉ–lrÉþÈ **xÉå–lÉÉ–lrÉåÿ , uÉÏ–rÉÉïþrÉ , ZÉ–suÉÉÿ:** |
| **Conversion to Vaakyam** | Rendered as in Padam at the beginning of a Ruk.  Rendered with the last anudAttam and Swaritam in Vaakyam. |
| **Swaram Rules in Vaakyam** | The Swaritam of these words **remain Swaritam** and does not acquire udAttam to support following Swaritam. |
| **Exceptions** | Generally not affected by Sandhi Rule. Will become udAttam if avagraha gets formed. |

## Padams with first udAttam followed by anudAttam

There are a few words that **have udAttam**, as first letter, in Pada Paatam and as well as in Vaakyam followed by an anudAttam. Generally in other words/Padams this word would have got represented as anudAttam in Pada Paatam with an ability to acquire Swaram.

|  |  |  |
| --- | --- | --- |
| **As Per Padam** | **As in Vaakyam** | **Comments and Notes** |
| uÉlÉ–xmÉiÉþrÉÈ | uÉlÉ–xmÉiÉþrÉÈ | Note ‘va’ in vanaspati is not marked as anudAttam as per Pada Paata Rule. An exception for this word is found in pAnini’s ashtAddhyAyI (PA) that ‘va’ is udAttam. (SU) |
| oÉ×Wû–xmÉÌiÉþÈ | oÉ×Wû–xmÉÌiÉþÈ | Note ‘bRu’ in vanaspati is not marked as anudAttam as per Pada Paata Rule. An exception for this word is found in PA, that ‘bRu’ is udAttam. (SU) |

The first udAttam of these special word shall be treated as it is and the previous possible swaram shall become Acquired anudAttam.

## Padam Spilt words with anudAttam after Swaritam or two udAttams together

Normally, in a single padam not joined by two padams,

1. There will be only one udAttam and two udAttams do not come together
2. All letters that occur after Swaritam, that is the Ekasruti part will be marked in udAttam with ability to acquire swaram.

But when two padams are joined to form a joint padam these rules may not be applied to keep the flow or essence of SamhitA. Some such words with split padams are given below:

|  |  |
| --- | --- |
| **As Per Padam** | **As in Vaakyam** |
| aqgnIShomA$ByAqmityaqgnI – somA$Byam  AýalÉÏwÉÉåqÉÉÿprÉÉýÍqÉirÉýalÉÏ-xÉÉåqÉÉÿprÉÉqÉç | aqgnIShomA$ByAm (gnI and Sho(so) are two udAttams from last and first letter of two padam split  AýalÉÏwÉÉåqÉÉÿprÉÉqÉç |
| dyAvA#pRuthiqvIByAqmitiq dyAvA# - pRuqthiqvIByA$m  ±ÉuÉÉþmÉ×ÍjÉýuÉÏprÉÉýÍqÉÌiÉý ±ÉuÉÉÿ- mÉ×ýÍjÉýuÉÏprÉÉÿqÉç | dyAvA#pRuthiqvIByA$m (two swaritams with two udAttams dyA and vI  ±ÉuÉÉÿmÉ×ÍjÉýuÉÏprÉÉÿqÉç |
| dyAvA#pRuthiqvyoritiq dyAvA# -pRuthiqvyoH  ±ÉuÉÉþmÉ×ÍjÉýurÉÉåËUÌiÉý ±ÉuÉÉÿ - mÉ×ýÍjÉýurÉÉåÈ | dyAvA#pRuthiqvyoH (second Padam has prime anudAttam after a swaritam of first padam)  ±ÉuÉÉþmÉ×ÍjÉ–urÉÉå: |
| dyAvA#pRuthivI itiq dyAvA# -pRuqthiqvIq  ±ÉuÉÉþmÉ×ÍjÉuÉÏ– CÌiÉ– ±ÉuÉÉÿ -  mÉ×–ÍjÉ–uÉÏ– | dyAvA#pRuthivI (here pRuthivI is ekasruti with no swaram)  ±ÉuÉÉÿmÉ×ÍjÉuÉÏ |
| dyAvA#pRuthiqvI itiq dyAvA# -pRuqthiqvI  ±ÉuÉÉþmÉ×ÍjÉuÉÏ– CÌiÉ– ±ÉuÉÉÿ -  mÉ×–ÍjÉ–uÉÏ | dyAvA#pRuthiqvI (here pRuqthiqvI in second indicates thi is prime anudAttam  ±ÉuÉÉÿmÉ×ÍjÉ–uÉÏ |

The programming consideration is these have to be taken as it is from the Pada Paatam and processed for Swaram.

# Different perspective of the nature of Swaras

**Connotations: -** Used with an idea to help Veda learners who could observe flow of Swarams. These terms are **not a part of any Classical text** and are given for easy understanding to note the change in Swara flow.

**Abbreviations used:**

**PP – Pada Paatam, V – Vaakyam**

**PS – Prime Swaritam, PU – Prime udAttam, PA – Prime anudAttam**

**SA – Support anudAttam ES – Ekasruti (udAttam letters after Swaritam)**

**AS – Acquired Swaritam AU – Acquired udAttam AA – Acquired anudAttam**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **In PP/V** | **Swaram nature** | **Nature as A/U/S or what it can become** | **Explanation** | **Hints/Comments** |
| **PP** | **PS** | Swaritam | Prime in a Padam |  |
| **PP** | **PU** | udAttam | Prime in a Padam |  |
| **PP** | **PA** | anudAttam | Prime in a Padam |  |
| **PP** | **SA** | Support anudAttam | Letters that are **marked additionally as anudAttam** in Pada Paatam. | These can acquire Swaram**;** when they **donot**, then they are represented as **udAttam** in Vaakyam |
| **PP** | **ES** | Ekasruti | Letters appears as udAttam after the Prime Swaritam in Padam and all Other Paatams | Represented as udAttam in vaakyam unless Swaram is acquired |
| **V** | **AS** | Acquired Swaritam | A letter that **acquires Swaritam** to support a prior anudAttam | Or due to Sandhi |
| **V** | **AA** | Acquired anudAttam | A letter that **acquires anudAttam** to support a following Swaritam | Or due to Sandhi |
| **V** | **AU** | Acquired udAttam | Swaritam gives up its Swaram to next letter Swaritam  anudAttam becomes udAttam due to Sandhi or Swaram rule | Normal Rule  Specific to the situation and words |
| V | PS | PS | Retains in Swaritam |  |
| V | PS | AA | Becomes AA to support a following Swaritam | Or Sandhi Rule |
| V | PS | AU | Becomes AU to support the next letter which is Swaritam | Or Sandhi |
| V | PS | AU | Becomes AU due to Sandhi Rules | Avagraha formation |
| V | PU | PU | More common.  Remains PU without acquiring Swaram. | Previous letter anudAttam and next letter swaritam |
| V | PU | AS | Acquires Swaritam due to Sandhi Rules |  |
| V | PU | AA | Acquires anudAttam due to Special rules | Or Pracayam |
| V | PA | PA | Will generally remain PA |  |
| V | PA | AU | Subject to Sandhi Rules |  |
| V | PA | AA | Subject to Sandhi Rules |  |
| V | PA | ~~AS~~ | Will not become AS to support PA or AA | Can become an independent Swaritam Subject to Sandhi Rules |

# Swaram Rules

In this Section we are first providing the Rules from Prati Sakhyam (PS) and related Classical text on the rules of Swaram acquisition during Sandhi.   
The Readers are requested to focus on the examples and the technical   
names are provided for the interested readers. Our study is still in progress  
 to gain further insights into the application of rules based on selective or restrictive conditions.

The Swaram formations that have been understood are represented in a table in **Section 4**

## Rules for Swaram acquisition during Sandhi (from PS)

* **Chapter 10 –Rule 10** - When an udAttam (acute) Swara enters the combination the result is udAttam (acute) Swara.   
  This is subject to some **exceptions of udAttam-anudAttam** combination where **a Swaritam** gets formed.

**Note: The udAttam referred here is Prime udAttam and not Ekasruti part which is represented without any swaram (accent) as udAttam.**

* When Swaritam (circumflex ) and anudAttam (grave) combine result is Swaritam (circumflex) (Rule 12)
* Rule 15 ‘**e**’ vowel and ‘**u’** vowel become **y** and **v** respectively
* Rule 16 and when they are udAttam (acute) the following anudAttam   
  (**as per Pada Paatam)** (grave) becomes Swaritam (circumflex)
* Rule 17 also when **‘U’** is the result of the combination
* **Chapter 20** – Rule 1 When *e*, ee,u, U are converted into ***y***or ***v*,** in Vowel Sandhi, the resultant Swaritam accent is ***kShaipra*,** if it results out of a combination of **udAttam and anudAttam**.
* Chapter 20 -2 -But where a syllable containing a ***y***or ***v*** *acquires* ***Swaritam*** (circumflexed) in a fixed word, being *preceded by* ***an anudAttam* (grave) syllable, or *not preceded by anything (First letter),*** that is to be known as ***nitya*.**
* Chapter 20 -3 - If, moreover, there is an **udAttam** (acute) standing **in** **another word**, then, if there be a Swaritam (circumflex) resulting from a rule of combination, it is ***prAtihata*.**
* Chapter 20 -4 - After such a one, in case of the loss of ‘***a’***, that is elision of **‘a’** resulting in formation of **avagraha**, it is ***abhinihata*.**
* Chapter 20 -5 -Where an ‘***ee’ or’ ‘uu(U)’*** results out of joining two short **e+e**,**u+u** it is ***praSliShtaa*. (PS refers ‘uu’ only; ’ee’ referred in other sources)**
* Chapter 20 -6 - Where there is a hiatus, **pause given for uttering two vowel sounds,** between two words or within a formed word, it is ***pAdavRutta*.**
* Chapter 20 -7 -Where an udAttam (acute) precedes the resultant Swaritam, it is **tairovya~jjana**.
* Chapter 20 -8 -These are the names of the Swaritam (circumflex) accents.
* Chapter 20 -9/10, in the **kShaipra, abhinihata and nitya**, the effort is **firmer**.
* Chapter 20 -11 - In the **praSliShtaa and prAtihata**, the effort is **gentler**.
* Chapter 20 -12 -In the **tairovya~jjana and pAdavRutta**, the effort is **feebler**.

**Important Note:**   
When a halant (like k,p,c,t,m) joins a Vowel to form a Swarayukta Aksharam   
( a Vowel based consonant), the swaram of the following Vowel is acquired by the newly formed Consonant. This should not be treated as a formal Vowel Sandhi.

**Example:**

**bA**ý**huByA**ÿ**m + u**ý**ta = bA**ý**huByA**þ**mu**ý**ta**

oÉÉýWÒûprÉÉÿqÉç + EýiÉ = oÉÉýWÒûprÉÉþqÉÑýiÉ

ByAm has dheerga swaritam at it is at the end of the Padam; m +uta forms uta and the byAm is not follwed by a normal consonant so it will have swaritam only.

Note: In the examples discussed below, please note that some of the swarams, which are formed due to Sandhi, may acquire different swaram to support following aksharam. The resultant word is given with original swaram as per rule but in Vaakyam they may acquire swaram to support a previous anudAttam or a following udAttam.

Kindly take note of the same when you compare with Vaakyam/SamhitA.

**The Padams given on the left side of the table are given without the ‘iti’ combination, but derived final Padam.**

## Sandhi Rules for combinations of A/U/S

|  |  |  |  |
| --- | --- | --- | --- |
| **Letter coming up First** | **Letter coming up next/Following** | **Swaram of Resultant Letter** | **Comments/Notes if any** |
| **PU** | **PU** | **PU** |  |
| **PU** | **SA** | **PU** |  |
| **PU** | **PA** | **PU** | **See next rule** |
| **PU** | **PA** | **AS** | As Per Rules in Chapter 20 mentioned above esp. when **‘v’,’y’** , letters are formed with **‘e’ and ‘u’** |
| **PU** | **PS** | **PU/PS Retained** | PS cannot come as the first letter except with derived words with Nitya Swaritam.  Then Nitya Swaram is generally not affected. |
| **SA** | **PA** | **PA** |  |
| **SA** | **SA** | **SA** | This will retain SA in Pada Paatam but **udAttam in Vaakyam** when not influenced by  Swarm rules. |
| **SA** | **PU** | **PU** | Though may be considered as Acquired UdAttam it is the combined letter retaining the PU of following letter. |
| **SA** | **PS** | **PS** | First PS technically Nitya Swaram it may retain its position |
| **ES** | **SA** | **UdAttam** | ES is hidden SA. So combination gives (SA in Pada Paatam) **udAttam in Vaakyam** unless it acquires Swaram as support |
| **ES** | **PU** | **PU** | ES does not influence PU.  PU remains PU. |
| **ES** | **PA** | **PA** | ES does not influence PA. Remains PA unless there is exception depending on words or formation of Swaras. |
| **ES** | **PS** | **PS/AS** | Normally first letter of following padam cannot be Swaritam. If it is a Nitya Swaram it will be retained |
| PS | PS | Commonly  Not Applicable | A Prime Swaritam may be followed by a Derived Swaritam from Sandhi or Vice Versa. Then **Kampa Swaram** is formed subject to conditions. **Section 5** |
| **PS** | **SA** | **PS** | As Rule. Support anudAttam does not influence nature of preceding or following Swaram. |
| **PS** | **PA** | PS/AA | Unless Swaritam is formed through Rules given in 6.1. The **PA becomes AA mainly to support following Swaritam** |
| **PS** | **PU** | **AU** | Exception special Sandhi of letters then becomes AA |

## Sandhi Samples of udAttam occurennce

This gives combinations of udAttam with udAttam and udAttam with Swaritam.

The udAttam examples will also include Support anudAttams and Ekasruti (ES) which are from technical perspective treated as Support anudAttams with rights to acquire swaram. **They do not influence a Prime UdAttam**.

The results for all these examples will be udAttam.

|  |  |
| --- | --- |
| **Padams involved in Sandhi** | **Resultant word/Padam** |
| 1.8.22.4 (PU+PU)  AýÍpÉ | CiÉç | ArÉþeuÉlÉÈ  ‘Bi’ of aBi (PU) udAttam comines with ‘e’ of ‘it’ will give ‘BI’ | CrÉþ¤ÉirÉýpÉÏSrÉþeuÉlÉÉå |
| 1.8.5.2 (PU+PU)  qÉlÉþÈ | lÉÑ | AÉ | WÒûýuÉÉýqÉýWåûý |  Here Sandhi results in a letter ‘nva’ with ‘v’. No Swaritam will result. PU+PU is udAttam only. | qÉlÉÉåý luÉÉ WÒûþuÉÉqÉWåû  Note: Swaritam results only in a combination of PU+PA (SA) which results in ‘v’ ‘y’ letters due to Vowel Sandhi. |
| 4.5.1.1 (ES+PU)  ÌaÉËUþzÉ +AcNûþ |  ES (udAttam in PP) + udAttam results in udAttam letter ‘SA”  Sa is an EkaSruti considered as Support anudAttam (SA).  Represented as udAttam in PP.  ‘a’ of acCa is PU. | ÌaÉËUýzÉÉcNûÉþ Sandhi letter not influenced by any other Swaram rule. cCa becomes cCA due to rule for elongation of letter based on grammar rule. |
| ÌoÉpÉþÌwÉï + AxiÉþuÉå  same like the example as above  ‘rShi’ is udAttam in PP but in effect a Support anudAttam. ‘a’ is PU. | ÌoÉpÉýwrÉïxiÉþuÉå  ‘Shya’ is udAttam. This Sandhi letter not influenced by any other Swaram rule. |
| TS 4.5. (PS+PU)  uÉÉËUuÉxM×üýiÉÉrÉþ + AÉåwÉþkÉÏlÉÉqÉç  Here Swaritam ya (PS) + ‘O’ udAttam (PU) gives ‘yau’ udAttam (AU) and is not influenced by Swaram rule. | uÉÉËUuÉxM×üýiÉÉ-rÉÉæwÉþkÉÏlÉÉÇ  ‘Sha’ in OshadhInAm is prime swaritam PS. kRu anudAttam, tA udAttam, yau udAttam (AU) due to sandhi and then Swaritam (PS) retained. |
| TS 4.5. (ES+PU) (PS+PU)  AlÉÉþiÉiÉÉýrÉ CÌiÉþ AlÉÉþiÉiÉÉrÉ  ya (ES/SA) udAttam)+’e’ (udAttam) produces ‘yE’ (udAttam).  The ‘ti’ of iti with Swaritam combines with ‘a’ (udattam) to form ‘tya’ as udAttam. | AlÉÉþiÉiÉÉýrÉåirÉlÉÉÿ - iÉýiÉÉýrÉý  Here the ‘naa’ has Swaritam which is the prime swaram. ‘a’ becoming ‘tya’ retains udAttam. ‘ti’ PS combines with ‘a’ PU to give AU. ‘tA’ acquires anudAttam (since it is ES) to support Swaritam ‘nA’. |
| **1.2.11.1** (PU+PA)  UÉrÉþÈ | mÉë | CýwÉå | pÉaÉÉþrÉ |  Pra is udAttam. ‘e’ of ishE is PA. ‘a’ plus ‘e’ sound gives prE which is udAttam only. PU+PA does not produce Swaritam as **‘e’ or ‘u’ is not** involved in Sandhi resulting in ‘v’ or ‘y’ | UÉrÉýÈ mÉëåwÉå pÉaÉÉþrÉý  ‘gA’ of BagAya is Swaritamv (PS).  Since previous two Padams have produced pRE and ShE both udAttams. The ‘ya’ swaritam (PU) of rAya acquires anudAttam (AA) to support ‘ga’ Swaritam |
| 1.6.4.1 (PS+PU) (ES+PA)  AlÉÑþ | EiÉç | eÉåýwÉýqÉç | xÉÉåqÉþxrÉ | AýWûqÉ  ‘nu’ (PS) combines with ‘u’ of ‘ut’ PU to give ‘nU’ derived udAttam only. Due to this ‘t’+’jE’ (SA) becomes ‘jjE’ and acquires Swaritam (AS) after udAttam ‘nU’. ShAm becomes Sha(gm) before sO it has SA and becomes AA to support ‘ma’ of sOmasya. | qÉlÉÔ‹åþwÉýóèý xÉÉåqÉþxrÉÉýW  In this same example, sya marked in udAttam is ES with Support anudAttam this when combining with PA ‘a’ of aham retains its PA as ‘syA’ after Sandhi |
| 1.7.6.7 (PU+PA)  xÉýpÉÉ | CýwOèuÉÉ | mÉëÉXèû | Eýi¢üqrÉþ  BA is PU. Combines with ‘e’ (PA) gives BE (UdAttam) as per vowel sandhi. | xÉýpÉåwOèuÉÉ mÉëÉXÒûýi¢üqrÉþ  ‘ng’ combines with ‘u’ to give ‘gnu’ (has no swaram influence) to support ‘mya’. |
| 1.8.1.1 (PU+PA)  qÉÑýgcÉ | CýqÉqÉç | AóèWûþxÉÈ |  ‘nja’ (PU) combines with PA ‘e’ of imam to give njE ,udAttam | qÉÑýgcÉåqÉqÉóèWûþxÉÈ  **njE, ma, ma(gm)** are all udAttams. The support for swaritam ‘ha’ (PS) comes from PA ‘mu’ of munja. |
| 2.1.3.1 (PU+PA)  CýuÉý | ÌWû | CýqÉå | sÉÉåýMüÉÈ |  ‘hi’ is PU, combines with ‘e’ of imE to give ‘hI’ (udAttam). | CuÉý WûÏqÉå sÉÉåýMüÉÈ |  ‘va’ of iva has support anudAttam(SA) it acquires (AA) to support udAttam ‘hI’ |
| 1.5.7.6 (PU+SA)  LýuÉ | CýÎlSìýrÉå | mÉëÌiÉþ |  ‘va’ PU combines with SA ‘e’ will result in udAttam ‘vE’ | uÉåÎlSìýrÉå mÉëÌiÉþ |

## Sandhi Samples of anudAttam occurrence

In Pada Paatam, the last akshara/letter may be a Support anudAttam through marking and there will be no Prime anudAttam as last letter. Ekasruti letter can be the last akshara of a Padam. This is in effect Support anudAttam but left unmarked. They donot influence the nature of following Swarams.

Though the rule says, “that when udAttam enters the combination, the net result will be an udAttam”. Practically, we observe if the first aksharam of the following Padam has anudAttam, normally it is the primary swarm of that Padam and most the sandhi results form an anudAttam only. Readers need to distinguish the udAttam occurring after a Swaritam which is a part of Ekasruti, as Swarams which are influenced by other Swaram that combines.

|  |  |
| --- | --- |
| **Padams involved in Sandhi** | **Resultant word/Padam** |
| 1.1.1.1 (SA+PA)  CýwÉå iuÉÉý + FýeÉåï iuÉÉý  ‘tvA’ is a Support anudAttam in Pada paatam. ‘vA’ in tvA combines with ‘U’ in Urje to produce ‘O’ as per Vowel Sandhi; but this will result in anudAttam ‘tvO’ since the Support anudAttam (SA) does note have influence like original Prime udAttam. | CýwÉå iuÉÉåýeÉåï iuÉÉþ  The ‘U’ in Urje is the prime anudAtta Swaram and its combination ‘vO’ shall retain anudAttam only as it precedes anudAttam ‘rjE’. The ‘tvA’ (SA) acquires Swaritam (tvA) to support this prime anudAttam. |
| 4.5.1.1 (ES+PA)  ÌaÉËUþzÉliÉ + AýËpÉ - cÉÉþMüzÉÏÌWû  ‘inta’ is a part of Ekasruti (ES) which is nothing but unmarked anudAttam not original udAttam. This combination will produce anudAttam only influenced by ‘a’ of aBi which is prime anudAttam. | ÌaÉËUþzÉliÉÉýÍpÉ cÉÉþMüzÉÏÌWû  inthA after Vowel Sandhi is anudAttam.  Bi is udAttam; no change as per Rule. cA acquires Swaritam. |
| 4.5.1.3 (SA+PA)  xÉýWýûxÉëý + Aý¤ÉÉrÉþ  ‘sra’ support anudAttam combines with prime anudAttam ‘a’ to give anudAttam. | xÉWûxÉëÉýý¤ÉÉrÉþ  ‘srA’ anudAttam, kShA udAttam and ‘ya’ Swaritam. |

## When Swaritam (circumflex ) and anudAttam (grave) combine result is Swaritam

(Explanation re-written in this Version.)

The anudAttam referred here is anudAttam as per Pada Paatam.   
It may be a Prime or Support anudAttam to the Padam.   
If the first letter of the following Padam is prime anudAttam, the combination though as per rule results in Swaritam, but becomes an anudAttam to support following Swaritam.

If the first letter is a support anudAttam, it still results in Swaritam.   
But due to Swara rule it may acquire anudAttam in the middle of a mantra to Support following Swaritam.

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| **Padams involved in Sandhi** | **Resultant word/Padam in Vaakyam** |
| 1.4.5.3 (PS+SA)  xÉþWûxÉëýzÉÉå -AuÉþ + LýwÉÉýqÉç  ‘va’ Swaritam (PS) plus ‘ae’ Support anudAttam (SA) gives ‘vai’ in Swaritam.  Support anudAttam **though treated as** **udAttam in Vaakyam**, gets treatment of anudAttam in Padam. | xÉþWûxÉëýzÉÉå ÅuÉæþwÉÉýóèý  Elision of ‘a’ (Å) does not have influence of flow of Swarams. |
| 4.5.2.1 (PS+SA)  ÂýSìÉrÉþ + AÉýiÉýiÉÉýÌuÉlÉåþ  ya (Swaritam PS) with ‘A’ as Support anudAttam results in Swaritam – ‘yA’ | ÂýSìÉrÉÉþ-iÉiÉÉýÌuÉlÉåþ  Similar to the example above. |
| **TS 1.1.12.1 (PS+PA)**  xÉqÉÉýýUprÉþ + EýkuÉïÈ + AýkuÉýUÈ  Bhya+u becomes bhyO but gets anudAttam since ‘rdhvO’ is a udAttam. Note this combination does not produce a new ‘y’,’v’ letter. Refer to Swaram Rules in 6.1 to result in special Swaritams mentioned there. | xÉqÉÉýUprÉÉåýkuÉÉåï AþkuÉýUÉå  Flow – bhyO anudAttam, rdhvO udAttam and ‘a’ swaritam |
| **TS 1.2.6.1 (PS+PA)**  FýkuÉÉï + rÉxrÉþ + AýqÉÌiÉþÈ + pÉÉÈ  Here sya+a becomes ‘syA’ acquires anudAttam since the combination does not produce special Swartiam mentioned in 6.1 | qÉÔýkuÉÉï rÉxrÉÉýqÉÌiÉþpÉÉï  Flow – ‘syA’ anudAttam, ‘ma’ udAttam and ‘ti’ swaritam |
| **TS 1.2.7.1 (PS+PA)**  cÉýlSìåhÉþ + AýqÉ×iÉÿqÉç + AýqÉ×iÉåþlÉ  Similar to above example | cÉýlSìåhÉÉý-qÉ×iÉþqÉýqÉ×iÉåþlÉ |
| **TS 1.2.14.3 (PS+PA)**  ±ÑýqlÉÉÌlÉþ + AýrÉïÈ + ÌuÉ + SÒUÈþ + AýÌpÉ + ±ÉæýiÉç  ‘ni’ Swaritam and ‘a’ anudAttam has produced ‘nya’ anudAttam, precedes ‘ryO’ udAttam therefore acquires anudAttam to support ‘rO’ . ‘nya’ is a letter that forms a conjuct letter with ‘y’ but not formed through a combination of PU+PA | ±ÑýqlÉÉlrÉýrÉÉåï ÌuÉSÒUÉåþ AýÍpÉ ±ÉæÿiÉç  ‘**vi’** and ‘**du’** of duraH are udAttams and donot acquire Swaram.  **PS+PA generally results in AA**. |
| **TS 1.2.14.6 (PS+PA)**  SWûþ + AýzÉxÉþÈ + Uý¤ÉxÉþÈ + mÉÉýÌWû + AýxqÉÉlÉç  The Sandhi produces ‘ha’ (PS)+ ‘a’ (PU)=’hA’ is anudAttam since not y,l letters are formed; before udAttam ‘Sa’ to support Swaritam ‘sO’. | SWûÉýzÉxÉÉåþ Uý¤ÉxÉþÈ mÉÉý½þxqÉÉlÉç  hi (PU) with ‘a’ (PA) produces swaritam with formation of ‘y’ letter. This hya is formed in a fixed word immediately after ‘pA’ (anudAttam) so it is Nitya Swaritam. Refer to Rule in 6.1 |
| **TS 1.3.1.1 (PS+PA)**  rÉýuÉrÉþ + AýxqÉiÉç + ²åwÉþÈ  very similar example to the above. | rÉýuÉrÉÉýxqÉSè²åwÉÉåþ |
| **TS 1.4.1.2 (PS+PA)**  AýliÉËUþ¤Éå+iÉålÉþ+AýxqÉæ + rÉeÉþqÉÉlÉÉ  ‘na’ Swaritam with ‘a’ Prime udAttam produces,’nA’ (AA).  No special conditions met. But ‘na’ in tEna is PS. | AýýliÉËUþ¤Éåý iÉålÉÉýxqÉæ rÉeÉþqÉÉlÉÉ  So, ‘kShE’ acquiring anudAttam (AA) to support ‘na’ |

**Note: We find that when a Prime Anudattam enters a combination, the net effect is Acquired AnudAttam as per Sandhi as per Current Study. Exceptions are under Study.**

**Note: The Sandhi rules are appled first but when a vaakyam is formed with Padams, finally rules for marking/adjusting the Swaras have the final authority or power as per current analysis.   
Readers’ inputs will be highly appreciated for exceptions.**

## Examples of Swaritam formation for a combination of PU+AnudAttam

Note: Main Condition is that a Prime anudAttam must have Sandhi with Prime or Support anudAttam **and** this Sandhi must involve letters **‘e’ or ‘u’** in the Prime anudAttam end and must produce letters with **‘y’ or ‘v’.**

Ekasruti reflected as anudAttam at the end of previous Padam is not Prime udAttam.

This Section **also** gives examples **where Swaritam is not formed** as the combination **does not involve letters with ‘v’, ‘y’** due to vowel Sandhi of letters **‘e’ and ‘u’**.

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| **Padams involved in Sandhi** | **Resultant word/Padam** |
| 1.1.3.1 (PU+SA)  mÉ×ýÍjÉýÌuÉ | AýÍxÉý |  ‘vi’ PU combines with ‘a’ SA as per Rule should give Swaritam – ‘vya’ | mÉ×ÍjÉýurÉþÍxÉ  New letter is formed with ‘y’ on Sandhi. |
| 4.7.14.1 (PU+SA)  uÉcÉïþÈ | ÌuÉ–Wû–uÉåwÉÑþ | A–xiÉÑ– |  ‘Shu’ PS combines with ‘a’ SA. SA does not have special effect and on Sandhi acquires Swaritam only. | uÉcÉÉåïþ ÌuÉWûýuÉåwuÉþxiÉÑ  This is different from the Rule of PU+ anudAttam. But note Shva is formed through Sandhi. PS remains AS after Sandhi. |
| 4.2.3.2 (PU+SA)  AýnxÉÑ | AýalÉåý |  Combination of PU Psu with PA ‘a’ of agnE | AýnxuÉþalÉåý  Note ‘sva’, with sound ‘v’ is formed |
| **2.1.2.6** (PU+PA)  oÉëý¼ýuÉýcÉïýxÉÏ | LýuÉ | pÉýuÉýÌiÉý | oÉë¼uÉcÉïýxrÉåþuÉ pÉþuÉÌiÉ  ‘Ba’ of Bavati acquires Swaritam after anudAttam va. Swaritams formed as per rule given in 6 ‘syE’ remain as it is. |
| **2.1.3.2** (PU+PA)  aÉëÉýqÉÏ | LýuÉ | pÉýuÉýÌiÉý | aÉëÉýqrÉåþuÉ pÉþuÉÌiÉý  Similar to previous example |
| **2.1.10.3** (PU+PA)  mÉëýiÉÏcÉÏÿ | AýxqÉæý | | mÉëýiÉÏcrÉþxqÉæ |
| **5.1.7.3** (PU+PA)  uÉÉ–Â–hÉÏ | E–ZÉÉ | A–pÉÏ®Éþ | uÉÉÂýhrÉÑþZÉÉÅpÉÏ®Éþ |
| 2.1.10.3 (PU+PA)  urÉÑýcNûliÉÏÌiÉþ ÌuÉ-EýcNûliÉÏÿ |  ÌuÉ | EýcNûýÌiÉý |  The first Padam with explanation of Padam, is special the fixed word has ‘vyu’ as PA. This Supports udAttam ‘cCa’ as a grammar rule. This is specific to that word and treat as a Special Padam. | urÉÑýcNûliÉÏý urÉÑþcNûÌiÉý  ‘vi’ (PA) am in second part combines with ‘u’ SA to form ‘vyu’ forms a Swaritam as per Rule. |
| 2.3.13.3 (PU+PA) (PU+SA)  ÌuÉ | FýWûýÌiÉý | ÌSý¤ÉÑ | LýuÉ | mÉëÌiÉþ | ÌiÉý¸ýÌiÉý  ‘vi’ and ‘U’ combine as PU+SA to give vyU as Swaritam. (Nitya Swaram) | urÉÔþWûÌiÉ ÌSý¤uÉåþuÉ mÉëÌiÉþÌiÉ¸ÌiÉ  ‘kShu’ (PU) combines with ‘ae’ (PA) to give kShvEva swaritam, These Swaritams do not get AA to support following Swaritam ‘ti’ . |
| 4.5.11.1 PU+SA PU+PA  AýÎxqÉ³Éç | qÉýWûýÌiÉ | AýhÉïýuÉå | AýliÉËUþ¤Éå |  ‘ti’ (PU) combines with ‘a’ SA to give ‘tya’ Swaritam. The anudAttam support for this is available from SA ‘ha’. The ‘ma’ which is an AS to support ‘a’ retains its position. | AýÎxqÉlÉç-qÉþWûýirÉþhÉïýuÉåÿ-ÅliÉËUþ¤Éå  ‘a’ of antarikShE elides to avagraha, vE acquires Swaritam and becomes dheerga Swaritam; ‘ri’ retains swaritam (PS).  Note when Special Swaritams as per Sandhi Rules are formed, they retain their position. |
| 1.1.2.2 (SA+PA) (PU+PA) (PS+SA)  WûýUÉýÍqÉý | EýÂ | AýliÉËUþ¤ÉqÉç | AlÉÑþ | CýÌWûý  ‘mi’ (SA) with ‘u’ PA will be PA. This is not PU+PA though ‘y’ letter is formed as ‘myu’. ‘ru’ (PU) with ‘a’ forms Swaritam ‘rva’ | WûþUÉqrÉÑýuÉïþliÉËUþ¤ÉýqÉÎluÉþÌWû  ‘ri’ of antariksham retains Swaritam as it follows a special swaritam.  ‘nu’ PS combines with ‘e’ of ihi to form a Swaritam. PS+SA is AS only since SA doesnot influence swaram. So ‘nvi’ is Swaritam. |
| 1.7.9.1 (PU+SA)  eÉÉrÉåÿ | AÉ | CýÌWûý |  ‘A’ (PU) joins SA ‘e’ to give ‘ae’. This does not produce any letters with ‘y’ or ‘v’ hence it will acquire udAttam only. | eÉÉrÉý LÌWûý |
| 2.1.1.2 (PU+SA)  LýuÉ | AýxqÉæý | AlÉþmÉaÉÉ: |  ‘vA’ obtained during Sandhi is not through letters e or u hence a udAttam; similar to previous example. | LýuÉÉxqÉÉý AlÉþmÉaÉÉÈ |
| 2.1.2.7 (ES+PA) (PU+SA)  erÉÉåMçü | AÉýqÉrÉþÌiÉ | AýalÉåÈ | LýuÉ | AýxrÉý | ‘ti’ is ES and its combination with ‘a’, though forms a letter with ‘y’ does not become Swaritam. ‘tya’ retains anudAttam only. | erÉÉåaÉÉýqÉrÉþirÉýalÉåUåýuÉÉxrÉý  Like previous examples ‘vA’ cannot acquire swaritam. udAttam only. |
| 2.2.5.3 (PU+PA) (PU+SA)  aÉÉýrÉýÌ§ÉýrÉÉ | LýuÉ | LýlÉýqÉç |  ‘yA’ PU combines with ‘e’ (PA) to give ‘yai’ . ‘va’ PU combines with ‘e’ of enam (SA) to give ‘vai’ | aÉÉrÉÌ§ÉýrÉæuÉælÉþÇ  Though the combination of PU+SA since it does not produce letters with ‘y’ or ‘v’ |
| 2.1.1.1 PS+SA  pÉÔÌiÉÿqÉç | EmÉþ | LýÌiÉý | AmÉëþSÉWûÉrÉ |  ‘pa’ (PS) combining with ‘ae’ does not give ‘pai’ as Swaritam. ‘ti; of ‘eti’ combines with ‘a’ (PU) to give udAttam ‘tya’ | pÉÔÌiÉýqÉÑmÉæýirÉ mÉëþSÉWûÉrÉý  So ‘pai’ which should be normally be Swaritam acquires anudAttam (AA).  This is based on word formation.  Since ‘tya’ is AU, pra acquires Swaritam. |
| 2.3.13.1 PS+PA PU+PU  aÉ×ýWåûwÉÑþ | AýnxÉÑ | AÉåwÉþkÉÏwÉÑ |  ‘Shu’ PS combines with PA ‘a’; gives ‘Shva’ AA before Psu (PU) | aÉ×ýWåûwuÉýTçüxuÉÉåwÉþkÉÏwÉÑý  Psu (PU) combines with ‘O; to give ‘ShvO’ (AU). Swaritam rule does not apply. |
| 3.4.7.1 ES+SA  iÉxrÉþ | lÉ¤Éþ§ÉÉÍhÉ | AýnxÉýUxÉþÈ  ‘Ni’ (ES) combined with ‘a’ (SA) will not produce Swaritam. ‘Nya’ will be acquired udAttam. | iÉxrÉý lÉ¤Éþ§ÉÉhrÉnxÉýUxÉÉåþ |

## Examples of KShaipra

When *e*, ee,u, U are converted into ***y* or *v*,** in Vowel Sandhi, the resultant Swaritam accent is ***kShaipra*,** if it results out of a combination of **udAttam** and **anudAttam**.

The examples given the table below are of a combination of udAttam and anudAttam which produces ‘y’ or ‘v’. Includes further classifications given later.

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| **Padams involved in Sandhi** | **Resultant word/Padam** |
| **TS 1.2.14.6**  mÉÉýÌWû + AýxqÉÉlÉç | mÉÉý½þxqÉÉlÉç |
| **TS 1.3.14.3**  iÉuÉþ + FýiÉÏ + AýzrÉÉqÉþ  Va (PS)+U (PA) gives ‘vO’ before udAttam tI.  When ‘y’ or ‘v’ are formed due to presence of e,ee.u and U, swaritam is formed before udAttam ShyA the following Swaritam is also retained | iÉuÉÉåý irÉþzrÉÉqÉþ  .’tya’ does not acquire anudAttam to support the following swaritam ‘ma’.  Since it is Kshaipra swaritam. |
| **TS 1.4.43.1**  rÉÑýrÉÉåýÍkÉ + AýxqÉiÉç | rÉÑýrÉÉåýkrÉþxqÉiÉç |
| 3.4.9.6 PU+SA  ÍxÉýlÉÏýuÉÉýsÉÏ | AýlÉÑý¹ÒmÉç | ÍxÉlÉÏuÉÉýsrÉþlÉÑý¹ÒmÉç |
| 2.2.5.4 PU+SA  LýuÉ | iÉåýeÉýxuÉÏ | Aý³ÉÉýSÈ | | LýuÉ iÉåþeÉýxurÉþ³ÉÉýS |

## Examples of Nitya

Where a syllable containing a ‘***y’***or ‘***v****’ acquires Swaritam* (circumflex) in a fixed word, being ***preceded by an anudAttam*** (grave) syllable, or ***not preceded by anything,*** that is to be known as ***nitya*. ‘nitya’ swaram is supposed to be stronger in terms of retaining its position as per a note provided by the Scholar in PA.**

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| **Padams involved in Sandhi** | **Resultant word/Padam** |
| TS 1.4.10.1 Nitya  xÉÑ + AÉýaÉýërÉýhÉýÈ | xuÉÉÿaÉërÉhÉÉå |
| TS 2.6.8.3Nitya  xÉÑ + Cý¹ýqÉç | ÎxuÉþ¹Ç |
| TS 4.4.4.4 Nitya  xÉÑ + AÉWÒþiÉÈ | xuÉÉþWÒûiÉÈ |
| T.S.1.8.6.2 Nitya  Ì§É + AÇýoÉýMÇü | §rÉÇþoÉMüÇ |
| 1.1.13.1 (PU+SA) Nitya  ÌuÉ | AýxrÉýiÉÉýqÉç | | urÉþxrÉiÉÉÇ | |
| **TS 1.2.8.2** Nitya  ÌuÉý¤ÉÑ + AýÎalÉqÉç  Here the Swaritam if formed at the beginning of a word preceeded by anudAttam in ‘vi’ | ÌuÉý¤uÉþÎalÉÇ |

Note: The Swarams after the nitya swaritam becomes ekasruti.

### Examples of Nitya retaining its position

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| **Padams involved in Sandhi** | **Resultant word/Padam** |
| EýÂ + AýliÉËUþ¤ÉqÉç  Here the Swaritam if formed at the beginning of a word preceeded by anudAttam in ‘u’ | EýuÉïþliÉËUþ¤ÉýqÉ  In all the other examples above, the first letter forms a Swaritam when ‘v’, y’ sounds are formed with ‘e’ or ‘u’. Note ‘rva’ retains Swaritam and does not become anudAttam to support ‘ri’, which retains its Swaritam in regular flow. |
| **T.S. 1.6.7.2**  ÌWû | LýiÉrÉÉåÿÈ  ‘hi’ joins with ‘ae’ producing ‘hyE’ it retains it position. After following udAttam ta, ‘yO’ also retains its Swaritam. | ½åþiÉrÉÉåþ |
| **T.S.4.6.1.5**  ÌlÉ | A–Ì§ÉhÉÿqÉç  Example similar to previous one. | lrÉþÌ§ÉhÉÿÇ  ‘nya’ acquires its Swaritam through Sandhi but Nam also retains its position. |

## Examples of prAtihatA

There is an udAttam (acute) standing in another word, then, if there be a Swaritam (circumflex) resulting from a rule of combination, it is ***prAtihata*.**

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| **Padams involved in Sandhi** | **Resultant word/Padam** |
| **TS 1.1.3.1**  mÉ×ÍjÉýÌuÉ + AýÍxÉý | mÉ×ÍjÉýurÉþÍxÉ |
| **TS 1.5.8.5**  iÉåeÉýÎxuÉ + LýuÉ | AýxrÉý  தேஜ**…**ஸ்வி + ஏ**…**வ | அ**…**ஸ்ய**…**  ¥ZR–sûy + G–p | A–sõ–  ‘ae’ of eva is PA. Though it becomes Swaritam. Va+a becomes vA which is udAttam. | iÉåeÉýxurÉåþuÉÉxrÉþ  தேஜ**…**ஸ்வ்யே**†**வாஸ்ய**†**  ¥ZR–¥sûõ—pxsõ—  So ‘sya’ acquires Swaritam |
| **TS 1.3.14.3**  iÉuÉþ + FýiÉÏ + AýzrÉÉqÉþ | iÉuÉÉåý irÉþzrÉÉqÉþ |

**Note: prAtihatA Swritam also retain their status.**

## Examples of aBhinihatA

After formation of Swaritam, in case of the loss of ‘***a’***, that is elision of **‘a’** resulting in formation of avagraha, it is ***abhinihata*.**

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| **Padams involved in Sandhi** | **Resultant word/Padam** |
| qÉÉ A…alÉå pÉÉýÌaÉlÉóè | qÉÉÿÅalÉå pÉÉýÌaÉlÉóè |
| rÉÈ A…mÉÉÇ mÉÑwmÉÇý ÆuÉåSþ | rÉÉåþÅmÉÉÇ mÉÑwmÉÇý ÆuÉåSþ |  (yO gets Swaritam as it had udAttam, but does not become Dheega Swaritam since letter following’Å’ is a normal consonant ‘pAm’ not conjunct consonant. |
| **1.5.1.2**  xÉÈ | AýÎalÉÈ | AýoÉëýuÉÏýiÉç  SaH becomes sO through Vowel Sandhi ‘a’ of agni elides to avagraha. Thus ‘sO’ is an aBinihatA swaritam. This is an AS. This retains its position.  This ‘sO’ shall not acquire anudAtttam and become AA in this example. | xÉÉåÿÅÎalÉUþoÉëuÉÏSè The ‘a’ of agni is a PA. following ‘gni’ is PU. The visargam for sound ‘ni’ is ‘r’ this ‘r’ combines with ‘a’ (SA) to become ‘ra’ and this acquires Swaritam since it follows ‘gni’ udAttam. |
| **1.5.2.1**  rÉÈ | AýÎalÉqÉç | Eý²ÉýxÉrÉþiÉå  **Example very similar to above** | rÉÉåÿÅÎalÉqÉÑþ²ÉýxÉrÉþiÉå |
| 2.6.2.1 ES+SA  xÉÉåqÉåþlÉ | Eý¨ÉýUÉýýkÉåï | AýalÉrÉåÿ |  ‘rdhE’ (PU) gets Swaritam on elision of ‘a’ to avagraha. Since this swaritam is special, ‘gnE’ retains its PS. | xÉÉåqÉåþlÉÉå¨ÉUÉýkÉåïÿ ÅalÉrÉåþ |
| **1.5.10.1**  lÉqÉþÈ | AýalÉrÉåÿ | AmÉëþÌiÉÌuÉ®ÉrÉ  Normally a formation like this would have produced namO$gnayE. In the next part, a which follows ‘yE’ elides, that is followed by ‘pra’ a PS. So the Swaritam of ‘yE’ shifts to ‘pra’ and ‘yE’ becomes udAttam (AU). | lÉqÉÉåýÅalÉrÉå ÅmÉëþÌiÉÌuÉ®ÉrÉ  The anudAttam support for ‘pra’ shall come from ‘mO’ only as it has Swaram.  So in this flow, mO of maH acquires anudAttam. (AA)  An aBinihatA swaritam is not formed in Vaakyam. |

**Note: aBhinihatA Swaritam retain its position before following Swaritam.**

## PraSliShtaa

Where an ‘***ee’ or ‘uu’*** results out of joining two short **e+e**,**u+u** , it is ***praSliShtaa*.**

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| **Padams involved in Sandhi** | **Resultant word/Padam** |
| **TS 3.2.9.5**  mÉëiÉÏþ + D**…**¤É**…**iÉå**…** + rÉiÉç | mÉëiÉÏÿ¤ÉiÉå**…** rÉSþ— |
| **TS 3.3.3.3**  AÌmÉþ + CýÌWý + uÉýzÉÏ | AmÉÏþÌWû uÉýzÉÏ |
| **TS 5.5.5.4**  ÌS–¤ÉÑ + E–mÉ–SkÉÉþÌiÉ | ÌSý¤ÉÔþmÉýSkÉÉþÌiÉ |
| **(now examples from Pada Paatam)**  CýlSýìuÉÉýrÉÔ CÌiÉþ ClSì-uÉÉýrÉÔ | **(more examples will be seen due to joining ‘iti’)**  ClSìuÉÉýrÉÔ CiÉÏÿlSì-uÉÉýrÉÔ |
| C–ÎlSìýrÉÉuÉÉlÉç CÌiÉþ CÎlSìýrÉ - uÉÉýlÉç | CýÎlSìýrÉÉuÉÉýÌlÉiÉÏÿÎlSìýrÉ - uÉÉýlÉç |
| CýwÉÑýÍkÉÈ CÌiÉþ CwÉÑ-ÍkÉÈ | CýwÉÑýÍkÉËUiÉÏþwÉÑ-ÍkÉÈ |
| **TS 2.5.11.8**  ´ÉÉuÉýrÉ + CÌiÉþ + CýSqÉç + SåýuÉÉýÈ  ‘ti’ of iti is PS + ‘e’ of idam (PA) gives ‘tI’ in anudAttam. PS+PA = PA as seen in previous examples | ´ÉÉuÉýrÉåiÉÏýSÇ SåþuÉÉÈ  ‘dE’ in deva acquires Swaritam to support ‘tI’ anudAttam.  So **PraSliShtaa swaram is not formed here.** |
| **TS 2.6.5.6**  AýÍxÉý + CÌiÉþ + CýqÉÉqÉç + AýÌpÉ + qÉ×ýzÉýÌiÉý + CýrÉqÉç  The first derivation of ‘tI’ is ‘ti’ PS of iti with ‘e’ of imam (a PA) resulting in anudAttam. | AýxÉÏiÉÏýqÉÉqÉýÍpÉ qÉ×þzÉiÉÏýrÉÇ  Second ‘tI’ is formed with the combination of ‘ti’ of mRuShati which is SA and ‘e’ of iyam which is PA. the combination gives anudAttam only)  So **PraSliShtaa swaram is not formed here like in example above.** |

## pAdavRutta

Where there is a ***hiatus***, **pause given for uttering two vowel sounds**, between two words or within a word, it is ***pAdavRutta*.**

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| **Padams involved in Sandhi** | **Resultant word/Padam** |
| xÉýWû lÉÉæþ AuÉiÉÑ  ‘nau’ in Sandhi becomes nA+v creating  nA+ vavatu (v+avatu). Kindly refer to article on Vowel Sandhi. | xÉýWû lÉÉþ uÉuÉiÉÑ  As per recital rule, a Pause is given, a pause that indicates Vowel Sandhi. |
| ÂSì + qÉýlrÉuÉåÿ + EýiÉÉå  Kindly refer to article on Vowel Sandhi. ‘vE’ sound becomes ‘va’ before vowel ‘u’ | ÂSì qÉýlrÉuÉþ EýiÉÉåiÉý  Since the source words undergo a change, a pause is given to indicate presence of Sandhi. |
| **MEdha Suktham**  AýÍµÉlÉÉæÿ + EýpÉÉæ + AÉ + kÉý¨ÉÉýqÉç | AýÍµÉlÉÉþ-uÉÑýpÉÉ-uÉÉkÉþ¨ÉÉÇ  ‘nau’ +’u’ vowel gives Swaritam ‘nA’ rightly supporting ‘a’ of aSvinau. ‘nA’ at the middle of the statement should be rendered with a pause, before ‘vu’ to indicate presence of hiatus pause. |
| xÉålÉÉÌlÉ aÉëÉqÉýhrÉÉæþ EýuÉïzÉÏþ  The Sandhi of ‘Nau’ and ‘u’ produces ‘NA’, a pause needs to be given before we recite ‘vu’ that is out of the Sandhi. | xÉålÉÉÌlÉ aÉëÉqÉýhrÉÉþ - uÉÑýuÉïzÉÏþ cÉ |

## Tairovya~jjana.

Where an udAttam (acute) precedes the resultant Swaritam, it is **tairovya~jjana**.

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| --- | --- |
| **Padams involved in Sandhi** | **Resultant word/Padam** |
| CÌiÉþ + AýoÉëýuÉÏýiÉç  Swaritam ‘tya’ precedes udAttam ‘e’ | CirÉþoÉëuÉÏýiÉç |
| mÉëÌiÉþ + AýxrÉý  Swaritam ‘tya’ precedes udAttam ‘pra’ | mÉëirÉþxrÉ |
| AÌkÉþ + AýuÉÉåýcÉýiÉç  **‘dhi’** is udAttam in the previous word**.** Combining with **‘a’** it produces **dhya.** | AkrÉþuÉÉåcÉS  **‘dhya’** gets Swaritam since it follows a udAttam –‘**a**’. |

Note: When these Swaritams like Kshaipra, nitya and pratihata are derived, they can occur immediately after an anudAttam without a need for an udAttam as per normal flow of swarams.

**It is also observed that words formed out of v,y, acquire Swaritam and they donot acquire anudAttam before th next word starting with an udAttam. (as seen in indicative examples above)**

## Special Swaritams

We have discussed Special Padams with **Swaritam following an anudAttam** in Section 4.6. These examples are given below. The Swaritam retains its position.

|  |  |
| --- | --- |
| **Vaakyam** | **Comments** |
| **T.S.1.6.9.1**  iÉÉuÉÉþlÉÑýYjrÉÉåþ rÉÉuÉþirÉqÉÉuÉÉýxrÉÉþ | ‘kthyO’ retains swaritam before ‘yA’ as similar to examples in nitya swaram 6.6.2 but these words are not formed due to sandhi but out of a full padam, ukthyaH. |
| **T.S.1.7.2.2**  qÉlÉÑýwrÉÉlÉçþ rÉÉÇ ÌmÉýiÉ×prÉÉåý | yAn has swaritam occurs before udAttam yAm |
| T.S.3.4.8.2  WûÉåiÉýurÉÉþ AÉåeÉÉåý uÉæ  WûÉåiÉýurÉÉþ rÉÉuÉþliÉÉåÅxrÉ | ‘vyA’ is Swaritam occurs before udAttam O of OjO, vyA retains Swartiam but jO of OjO which swaritam acquires anudAttam before udAttam vai in normal course. |
| **T.S.4.5.1.1**  ÍzÉýuÉÉ zÉþUýurÉÉþ rÉÉ | ‘vyA’ retains swaritam before udAttam ‘yA’ |
| **T.S.6.1.1.1**  qÉlÉÑýwrÉÉþ ESÏþcÉÏóè ÂýSìÉ | ‘ShyA’ retains swaritam before udAttam ‘u’ |
| 1.2.13.2  oÉýWÒûÍpÉþÈ | uÉýxÉýurÉæÿÈ | AÉ | mÉë | rÉýcNûý |  (ES + PU no change) | oÉýWÒûÍpÉþuÉïxÉýurÉæþUÉ mÉë rÉþcNûý |
| 5.1.4.5  ÌWû | UÉ–eÉ–lrÉþÈ | rÉqÉç | | ÌWû UÉþeÉýlrÉÉåþ rÉÇ |
| 5.1.5.6  qÉÉ–lÉ–urÉþÈ | ÌWû | | qÉÉlÉýurÉÉåþ ÌWû |
| 5.1.6.4  uÉÏ–rÉïÿqÉç | uÉæ | | uÉÏýrÉïþÇ ÆuÉæ |
| 5.2.1.3  uÉÏ–rÉïÿqÉç | AlÉÑþ | | uÉÏýrÉïþqÉlÉÑþ |

Special Swaritams will lose Swaritam during Sandhi or avagraha formation, then they become Udattam. Combing with ‘iti’ they change. We will indicate it in the Excel Sheet. But this can be handled through program itself.

**Examples**

|  |  |
| --- | --- |
| 5.4.10.5  cÉå–iÉ–urÉÉÿ | CÌiÉþ |  (vyA swaritam plus ‘I’ udattam becomes udattam) A+I = E (ae) | cÉåþiÉýurÉåÌiÉþ |
| 2.6.4.2  ÌmÉ–iÉ–×Så–uÉ–irÉÉÿ | AÌiÉþZÉiÉÉ | CrÉþiÉÏqÉç | ÌmÉiÉ×SåuÉ–irÉÉÅÌiÉþZÉÉ–iÉårÉþiÉÏÇ  (eka sruti khA acquires anudAttam to support ya of iyatim |
| 5.4.11.3  eÉ–qÉSþÎalÉÈ | ÌuÉ–Wû–urÉÉþÈ| A–mÉ–zrÉ–iÉç | eÉýqÉSþÎalÉÌuÉïWûýurÉÉþ AmÉzrÉýiÉç  (visargam is dropped no Sandhi no avagraha formation either special swaritam retained) |

# Kampa Swaram (Two Swaritams together)

There are instances that two Swaritams are formed next to each other with the rules we have studied about Swaritams. As per Rule, the first one does not give up its Swaritam because of its right to retain the Swaritam.

The first one by rule will be marked in dheerga swaritam since one part is rendered in Swaritam and next part bringing down to andAttam, so that the next can be rendered as swaritam or dheerga swaritam, if applicable.

If more than one follow in succession, the successive Kampa swaram shall be marked in dheerga swaritam and the last one if dheerga swaritam is applicable.

**Table of Examples**

|  |  |
| --- | --- |
| **Padams involved in Sandhi** | **Resultant Vaakyam** |
| **TS 2.1.6.5**  pÉýuÉýÌiÉý | oÉýWÒûýSåýuÉýirÉþÈ | ÌWû | LýwÉÈ  vatyaH is special swaritam as discussed above. It retains its Swaritam. ‘hi’ udAttam with ‘e’ creates a Swaritam ‘hyE’ which will retain its Swaritam. ‘yaH becomes yO and its followed by a conjunct consonant hyE and thereore yO acquires dheerga Swaritam. | pÉuÉÌiÉ oÉWÒûSåuÉýirÉÉåÿ(1ý) ½åþwÉ  The ‘tyO’ is rendered in dheerga Swaritam towards the last part it is brought to udAttam in a slide and then the extension of ‘O’ in yO is rendered in anudAttam (for one matra) as marked in (1) and then ‘hyE’ would be rendered in Swaritam. Kindly learn the technique from your Guru for proper sliding. |
| **T.S. 2.2.11.5**  AÉýxÉý³Éç | iÉå | AýlrÉÈ | AýlrÉxqÉæÿ  Example is very similar to the one above. ‘a’ elides, ‘tE’ acquires dheerga Swaritam as it precedes ‘’nyO”. | AÉxÉýlÉç iÉåÿ**(1ý)** ÅlrÉÉåÿÅlrÉxqÉæý  Here second Swaritam ‘nyO’ also acquires dheerga Swaritam. After the slide to anudAttam, it will be rendered in dheerga Swaritam. |
| **T.S.5.4.3.3**  xÉÈ | A–MïüÈ | A–pÉ–uÉ–iÉç |  Example similar to first one. | xÉÉåÿ(**1**ý)ÅMüÉåïþÅpÉuÉýiÉç |
| **T.S.6.1.1.7**  xÉÈ | A–mÉÈ | A–ÌpÉ | A–ÍqÉë–rÉ–iÉ– |  In this part of Vaakyam, three Swaritam gets formed. ‘sO’ and ‘pO’ in dheerga Swaritam and ‘Bya’ in Swaritam. | xÉÉåÿÅ**(1ý)**mÉÉåÿÅ**(1ý)**prÉþÍqÉërÉiÉ |
| **T.S. 6.1.11.5**  ÌuÉµÉÉþÌlÉ | ÌWû | L–wÉÈ | A–ÌpÉ |  Similar to Other formations given for observation/understanding of readers. | ÌuÉµÉÉþÌlÉý ½åÿ(**1**ý) wÉÉåþÅÍpÉ |

# Swara formation with avagraha

This Chapter is an extension of Swara rules already established. But the Swaram of the ‘a’ avagraha shifts the swaram as if a Sandhi has occurred which is indeed.

## ‘a’ is a Support anudAttam

**Notes : A Support anudAttam is a part of the pracaya swaram and it does not acquire swaram in Vaakaym unless it is derived based on the previous anudAttam or upcoming Swaritam.**

|  |  |  |  |
| --- | --- | --- | --- |
| **PanchAti Ref/Type of Swaras** | **Padams** | **Vaakyam after Avagraha formation** | |
| **TS 2.5.3.1**  **(ES+SA)** | mÉÔýhÉïqÉÉþxÉã | AýlÉÑýÌlÉýuÉÉïýmrÉÿqÉç | AýmÉýzrÉýiÉç  ‘sE’ is ekasruti and ‘a’ of anu is support anudAttam. The result is a support anudAttam in Padam. | mÉÔýhÉqÉÉþxÉãÅlÉÑÌlÉuÉÉïýmrÉþqÉmÉzrÉýiÉç  In Vaakyam, no Swaram. Reflected as udAttam. | |
| **4.7.1.1 (SA+SA)** | qÉå– | A–mÉÉ–lÉÈ  Combination of two support anudAttams produce anudAttam in Padam. | qÉå ÅmÉÉýlÉ  Reflected as udAttam in Vaakyam. | |
| **4.7.3.2 (SA+SA)** | qÉå– | A–lÉ–ÍqÉ–§ÉqÉç  Similar to above example | qÉå ÅlÉÍqÉý§ÉÇ | |
| **4.7.7.2**  **SA+SA** | qÉå– | A–ÌiÉ–aÉëÉ–½ÉÿÈ | qÉå ÅÌiÉaÉëÉý½Éÿ¶É |
| **4.7.15.5**  **SA+SA** | rÉiÉç | C–SqÉç | qÉÉ– | A–ÍpÉ–zÉÉåcÉþÌiÉ  Here ‘mA’ acquires Swaritam to support ‘e’ idam since it is Support Anudattam. | rÉÌSýSÇ qÉÉþÅÍpÉýzÉÉåcÉþÌiÉ  ‘a’ of aBi elides. Bi is anudAttam and supports ‘ca.’ |
| **2.3.4.1**  **PU+SA+**  **SA** | uÉæ | AÉýÌSýirÉÈ | AýrÉïýqÉÉ | AýrÉïýqÉhÉÿqÉç | LýuÉ |  ‘tyaH’ is Prime Udattam and in combination with SA ‘a’ becomes swaritam since letter with ‘y’ is formed. | uÉÉ AÉþÌSýirÉÉãÿÅrÉïýqÉÉ ÅrÉïýqÉhÉþqÉãýuÉ  ‘mA’ is udAttam and retains udAttam. The rule for swaritam formation is not applicable since no letter with ‘y’ or ‘v’ is formed. |
| **4.5.1.3**  **PU+SA** | AýxÉÉæ | rÉÈ | AýuÉýxÉmÉïïþÌiÉ  Here the combination of ‘ya’ udAttam and ‘a’ produces swaritam due to misra swaram formation ‘O’ sound | AýxÉÉæ rÉÉåþ ÅuÉýxÉmÉïþÌiÉý |
| **4.5.4.1**  **PS+SA** | UýÍjÉprÉþÈ | AýUýjÉåprÉþÈ  Similar to above example | UýÍjÉprÉÉåþ-ÅUýjÉåprÉþ |
| **4.5.9.2**  **PS+SA** | lÉqÉþÈ | AýmÉýaÉÑýUqÉÉþhÉÉrÉ  Similar example. maH becoming mO results in elision of ‘a’ | lÉqÉÉåþÅmÉaÉÑýUqÉÉþhÉÉrÉ |
| **3.1.1.1**  **PS+SA** | xÉÈ | iÉmÉþÈ | AýiÉýmrÉýiÉý | Similar to above examples | xÉ iÉmÉÉãþÅiÉmrÉiÉý |

## ‘a’ is a Prime anudAttam

**Notes: A Prime anudAttam in combination with other Swaras result in a anudAttam. However, a combination of PU and PA result in Swaritam when ‘y’ or ‘v’ is formed due to vowel sandhi. Kindly refer to Chapter 5 in Pada Paatam Article.**

|  |  |  |
| --- | --- | --- |
| **PanchAti Ref/Type of Swara** | **Padams** | **Vaakyam after Avagraha formation** |
| **4.7.9.1**  **SA+PA** | qÉå– | A–MïüÈ | cÉ–  SA+ PA results in anudAttam ‘mE. | qÉåýÅMïü¶Éþ  As a result the following ‘ca’ which is support anudAttam acquires Swaritam. |
| **4.7.3.2**  **(SA+PA)** | qÉå– | A–qÉ×iÉÿqÉç | cÉ–  Similar to example above. | qÉåý ÅqÉ×iÉÇþ cÉ  But ‘tam is a prime Swaritam. |
| **4.5.1.3**  **ES+PA** | AýxrÉý | xÉiuÉÉþlÉÈ | AýWûqÉç  ‘naH’ becomes nO but acquires the anudAttam of ‘a’ | AþxrÉý xÉiuÉÉþlÉÉåýÅWÇû |
| **3.3.3.2**  **ES+PA** | NûlSþxÉÉ | AýalÉãÈ  Similar to above example | NûlSþxÉÉýÅalÉãÈ |
| **4.7.15.5**  **SA+PA** | AlÉÑþ | lÉ–È | A–± | AlÉÑþqÉÌiÉÈ | | AlÉÑþlÉÉåýÅ±ÉlÉÑþqÉÌiÉý |
| **4.7.14.3**  **PU+PA** | mÉÑlÉþÈ | iÉå | A–qÉÉ | L–wÉÉ–qÉç  Here udAttam ‘tE’ combined with ‘a’ produces ‘tE’ in Swaritam. | mÉÑlÉýxiÉåþ ÅqÉæwÉÉÿÇ  So ‘na’ acquires support anudAttam. Elided ‘a’ is prime anudAttam, so (SA) ShAm acquires Swaritam in the normal flow. |
| **1.5.9.4**  **PU+PA** | xÉÈ | AýÎalÉqÉç | AýxiÉÉæýiÉç  SaH (PU)acquires Swaritam and becomes dheerga Swaritam as the following letter gni is conjunct consonant | xÉÉãÿÅÎalÉqÉþxiÉÉæýjÉç |
| **1.6.6.4**  **PU +PA**  **Special** | oÉýpÉÔýuÉý | xÉÈ | AýxqÉÉlÉç |  asmAn does not elide after SaH as per a rule in PS. (11-9) | oÉïpÉÔuÉý xÉÉã AýxqÉÉóè  SaH drops visargam to become SO as per Vowel Sandhi but does not acquire swaram as ‘a’ is not elided. PS 12-9 |
| **1.6.12.4**  **PU+PA (gm)** | M×üýÍkÉý | rÉÈ | AýxqÉÉlÉç | AýÍpÉýSÉxÉþÌiÉ |  Here ‘yaH’ becomes yO but does not acquire swaram due to following word with (gm) | M×üÍkÉý rÉÉã AýxqÉÉóè AþÍpÉýSÉxÉþÌiÉ  **Rule behind this formation needs further study**. |
| **1.5.1.1**  **PS+PA** | EýmÉýrÉliÉþÈ | AýalÉÉæ | uÉÉýqÉqÉç |  ‘ntha’ Swaritam with ‘a’ anudAttam produces ‘acquired anudAttam’ | rÉliÉÉãýÅalÉÉæ uÉÉýqÉÇ  When ‘a’ is elided, nthO acquires anudAttam. |
| **1.5.10.1**  **PS+PA**  **PS+PU** | lÉqÉþÈ | AýalÉrÉãÿ | AmÉëþÌiÉÌuÉ®ÉrÉ  ‘maH’ on becoming ‘mO’ acquires anudAttam since elided a is anudAttam | lÉqÉÉãýÅalÉrÉã ÅmÉëþÌiÉÌuÉ®ÉrÉý  ‘yE’ swaritam in combination with ‘a’ UdAttam will give udAttam ‘yE; |
| **3.2.8.3**  **PS+PA** | rÉÉlÉç | AýalÉrÉþÈ | AýluÉiÉþmrÉliÉ |  Example similar to first part of above example | rÉÉlÉýalÉrÉÉãýÅluÉiÉþmrÉliÉý |

## ‘a’ is a Prime udAttam

**Notes: A Prime udAttam following any other Swaram results in udAttam only by general rule.**

|  |  |  |
| --- | --- | --- |
| **PanchAti Ref/Type of Swaras** | **Padams** | **Vaakyam after Avagraha formation** |
| **4.7.7.1**  **SA+PU** | qÉå– | ASÉÿprÉÈ | cÉ–  ‘mE’ support anudAttam takes the PU of ‘a’ to become ‘mE’ | qÉå ÅSÉÿprÉ¶Éý |
| **3.2.1.1**  **SA+PU** | AlÉÑþ | iuÉÉý | AÉ(LÌiÉþ) | UýpÉãý |  Similar to above. But note that ‘nu’ of anu acquires anudAttam to support the udAttam that gets formed. | AlÉÑý iuÉÉÅÅUþpÉã |
| **3.2.1.2**  **SA+PU**  **PU+PU** | aÉ×ý½ýliÉãý | AjÉþ | uÉæ | AýxrÉý | LýiÉã | AaÉ×þWûÏiÉÉÈ|  Both combinations with udAttam results in udAttam only | aÉ×½ýliÉãÅjÉý uÉÉ AþxrÉæýiÉãÅaÉ×þWûÏiÉÉ |
| **4.5.1.1**  **ES+PU** | iÉýlÉÔÈ | AbÉÉåþUÉ | AmÉÉþmÉMüÉÍzÉlÉÏ | iÉýlÉÔUbÉÉåýUÉ ÅmÉÉþmÉMüÉÍzÉlÉÏ |
| **4.7.15.4**  **SA+PU NE** | qÉ–ÂiÉÉÿqÉç | qÉ–luÉå– | AÍkÉþ | lÉ–È  ‘a’ of adhi does not elide.  The rule is under study. | qÉýÂiÉÉÇÿ qÉluÉåý AÍkÉþlÉÉå |
| **4.5.1.3**  **PU+PU** | xÉýWûýxÉëýzÉÈ| AuÉþ | LýwÉÉýqÉç | WåûQûþÈ  Combination of udAttams produces udAttam - SO | xÉþWûxÉëýzÉÉå ÅuÉæþwÉÉýóèý WåûQûþ |
| **2.3.12.1**  **PU+PU** | aÉ×ýºûÉýÌiÉý | rÉÈ | AµÉÿqÉç |  Similar to above. | aÉ×þºûÉÌiÉý rÉÉãÅµÉþÇ |
| **4.7.14.2**  **PU+PU** | Wû–urÉÉ | AÉMÔüþÌiÉÈ  Similar to the above example | WûýurÉÉÅÅMÔüþÌiÉÈ |
| **4.7.14.1**  **PS+PU** | iuÉrÉÉÿ | AkrÉþ¤ÉåhÉ  Combination of Swaritam ‘yA’ and udAttam ‘a’ produces udAttam only. | xiuÉrÉÉ-ÅSèkrÉþ¤ÉåhÉý  ‘yA’ acquires udAttam on elision of udAttam ‘a’ |
| **4.7.14.2**  **PS+PU** | mÉÔuÉåïÿ | AËUþ¹ÉÈ | xrÉÉ–qÉ–  Similar to the above example | mÉÔuÉåï ÅËUþ¹ÉÈ xrÉÉqÉ |
| **2.2.4.2**  **PS+PU** | pÉýuÉýÌiÉý |AýalÉrÉãÿ | A³ÉþmÉiÉrÉã  Similar to the above example | pÉþuÉirÉýalÉrÉãÅ³ÉþmÉiÉrÉã |
| **2.6.3.3**  **PS+PU**  **PS+PU** | rÉjÉÉÿ | A¤ÉþÈ | AlÉÑþmÉÉ£ü:  Similar to the above example | rÉjÉÉÅ¤ÉÉãÅlÉÑþmÉÉ£üÉã |
| **3.1.5.1**  **PS+PU** | AÉýiqÉlÉþÈ | AlÉÉÿuÉëxMüÉrÉ |  Similar to the above example | AÉýiqÉlÉÉãÅlÉÉÿuÉëxMüÉrÉ |

### Programming Consideration:

There are a number of rules in PratiSakyam and conventions used in certain Sections of SamhitA that ‘a’ elides or does not elide. So it is difficult to program rules based on complex criteria. The Input for Jatai and Ghanam shall have a **manual indicator that the ‘a’ elides or not.**