Relation between fibrousis stroma and insito carcinoma in cancer untreated patient

When the **immune system attacks the tumor**, the tumor **releases signals** that activate **fibroblasts**.  
These fibroblasts build a **connective tissue barrier** (called the **tumor stroma**) around the tumor.  
This stroma helps the tumor to become more active by:

* **Protecting it from immune attack**
* **Helping it survive under stress**
* **Supporting tissue invasion**

1. Immune attack on the tumor
2. Tumor release signals that activate fibroblast
3. Fibroblast build the stroma (tumor connective barrier)
4. The tumor become more invasive , survive under stress, and avoid immune attacks

* Hyperplasia found in one untreated cancer it is an early stage of tuor progression which include overgrowth of normal cells
* Endothelial cells found on tumor untreated as it helps in tumor angiogenesis which include formation of blood vessels which provide the tumor with oxygen and nutrient
* Vascular are blood vessels support normal tissue and replaced by angiogenesis that formed by epithelial cells in tumor and also nerve supply that damage or absence in case of tumor cells
* Fibrosis stroma is the same like tumor stroma fibrosis
* Normal endothelial cells that ligninng blood vessels that help to orgsnize exchange of oxygen and nutrient
* High number of addibose tissue is associated with high number of normal endothelial cells as it needs rich blood supply
* Lymphoid stroma helps the immune system to recognize the tumor and attack it
* Lymphocyte kill cancer
* Presence of lymphoid stroma or lymphoid in cancer untreated means it affected by the immune system
* TLS (tertiary lymphoid structure) the high TLS stroma means body respond to the cancer untreated and fight it by T and B cells
* P11,p12,p8 are immune active patients with high numbers of lymphoid stroma , lymphocyte , and TLS stroma (biomarker)
* Tumor stroma with inflammation if chronic with large number of fibroblast helps the tumor to grow by angiogenesis , spread and block immune attack otherwise if acute it helps to recognize and deactivate the tumor
* High number of fibrouses in normal tissue due to hormonal changes and in cancer untreated it worse the case as it helps to build fibroses stroma which make the tumor resist , invade and survive
* High number of artifacts due to technical problem with no biological meaning