

Cairo University Hospital Visit

Date: 7/July/2022, 10:00 AM

Visitor:

- Islam Zakaria (me)

Acknowledge

First of all, I would like to thank my wife for encouraging me to visit the hospital given that I do not know anyone there and do not know where can I find what.

Second, Special to Dr. Malak who welcome me in the auditory section and explained to me everything I want to know although she does not know me and I have not any formal document for my visit.

Third, I would like to thank Dr. Abdallah, Eng. Mostafa and Dr. Ahmed Sami who helped me in finding auditory places in there network.

Visit Purpose

1. To touch and see the equipment that is used to test hearing loss and map it with the course that I learned in the UCL online “Audiology taster course ”
2. To ask about some concepts and states of the real life practice.

Place

In the below figure 1 and 2 photos of the outdoor of the buildings, It is written in arabic but I can translate



Figure 1 : The main entrance of Cairo University Hospital, Qasr Elani Medical School.



Figure 2: The outdoor of the Hearing, Balance and Speech Diseases Unit, Hearing and Balance Clinic

About Cairo University Hospital:

https://en.wikipedia.org/wiki/Qasr_El_Eyni_Hospital

<https://www.medicine.cu.edu.eg/index.php/en/>

The Visit

1. The test flow

From what I understood the test flow for a patient consists of three parts

First: The test of the ear drum using the otometrics audiometer to test the health of the drum.
Second: after that checking the audio spectrum (starting from 250 Hz to 8kHz) as well as bone conduction.

Third: then in the same place, check the descremination or SRT (Speech Recognition Threshold) via specific words.

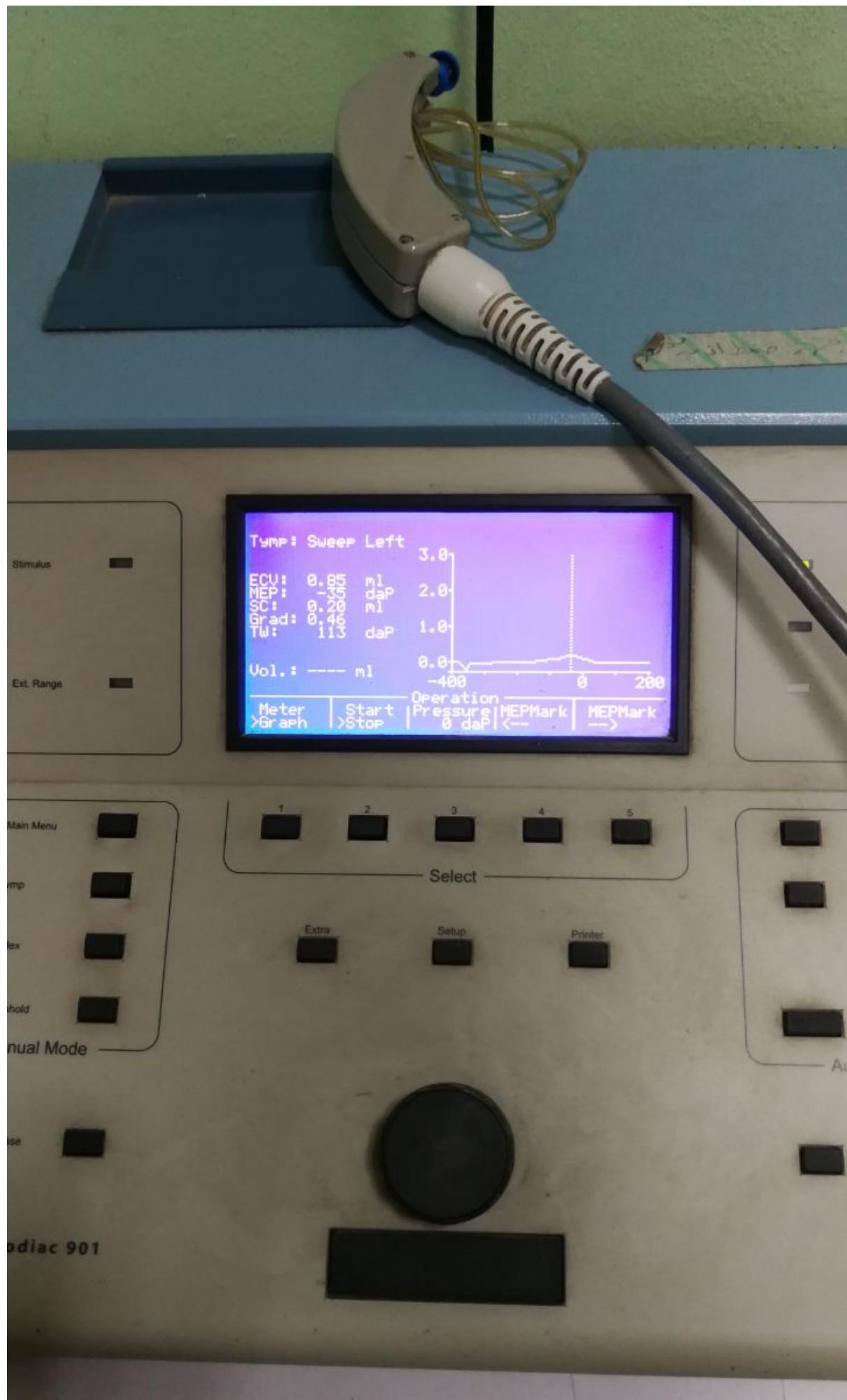
Accordingly: the test result of each step, a final report is written to the patient and further tests or diagnostics may be needed.

I am going to illustrate each step in more details

1.1. Measure the drum (pressure instrument)

Below some photos for the instrument





This instrument is used to measure how far the drum is stretched or exist. The normal pressure for the healthy drum is between -250 to +50, and accordingly, there may be some hypothesis like water behind the drum, the drum is not stretched enough or bone conduction.

1.2. Measure the frequency

Below some photos for the instrument



 otometrics

MADSEN Itera II





کابینہ



This instrument is used to measure audio frequency threshold level for each frequency from 250 Hz to 8Khz, and accordingly a profile is built up for the patient which is called audiogram. The patient enters a captin so that is almost silent and wear a headset and then Doctor start to measure frequency level for each frequency.

If the patient has a problem in the drum there is headset that used to test bone conduction.

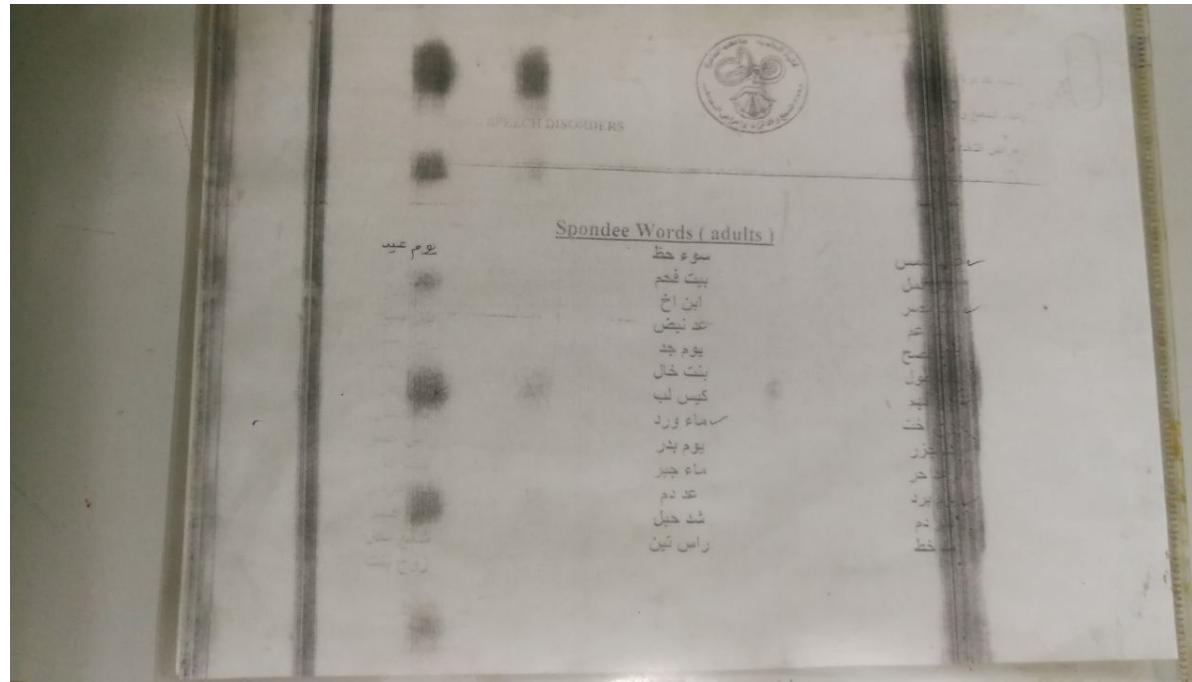
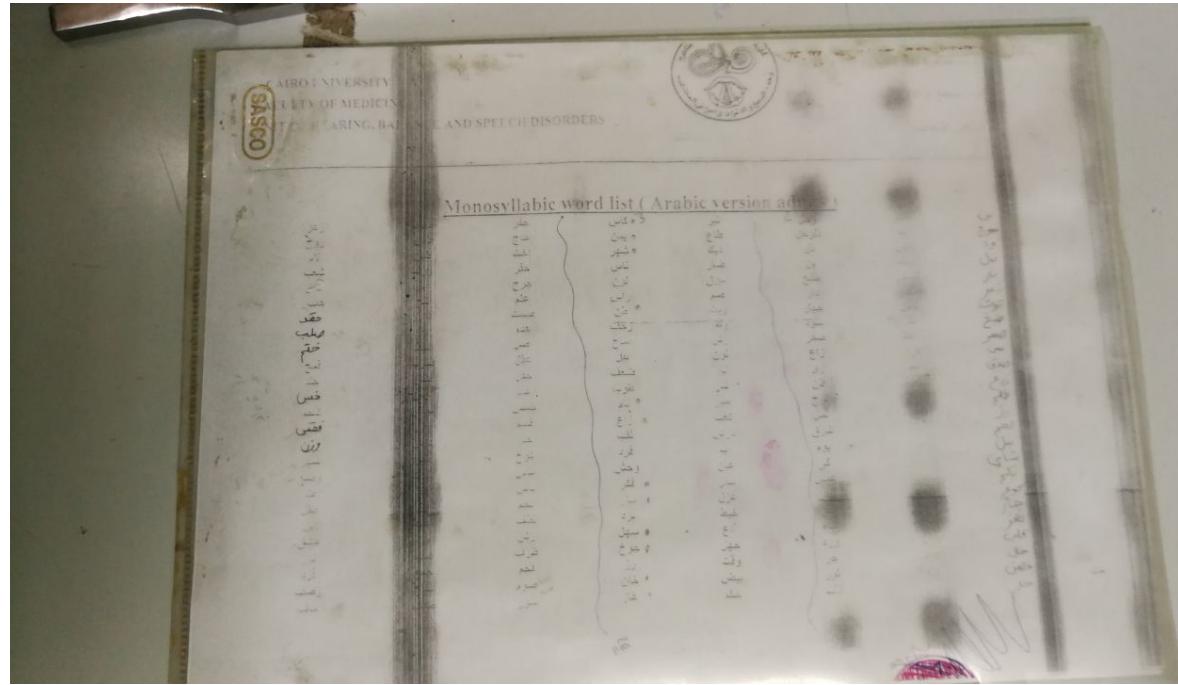
1.3. Measure the discrimination

The purpose of this diagnostic step is to test ability of hearing word/s that is easily heard and repeat it correctly.

So it is a syllabus of words -in my case Arabic words- that cover different frequencies.

Each correct word will accumulate 4% of total score and at the end of the diagnosis find out the final score. The normal case is 100% repeat the words. Here is the list of words used in the images below:

Pediatric monosyllabic word lists (Arabic version)	
طوب	فيل
صبي	شادي
جند	راس
ناد	صف
حظر	بيت
بطن	كتاب
نمر	منبع
للة	ذيل
تل	دين
صل	فريش
عنان	ليل
عظم	ارض
دقن	رجل
غضن	باب
↑	قول
ثدي	شعر
لون	حر
بيض	ثمس
ثغور	دين
شهر	مؤذن
ثغور	ستاف
وز	ريش
دم	دوخ
سوق	
سفر	



Outcome Inquires

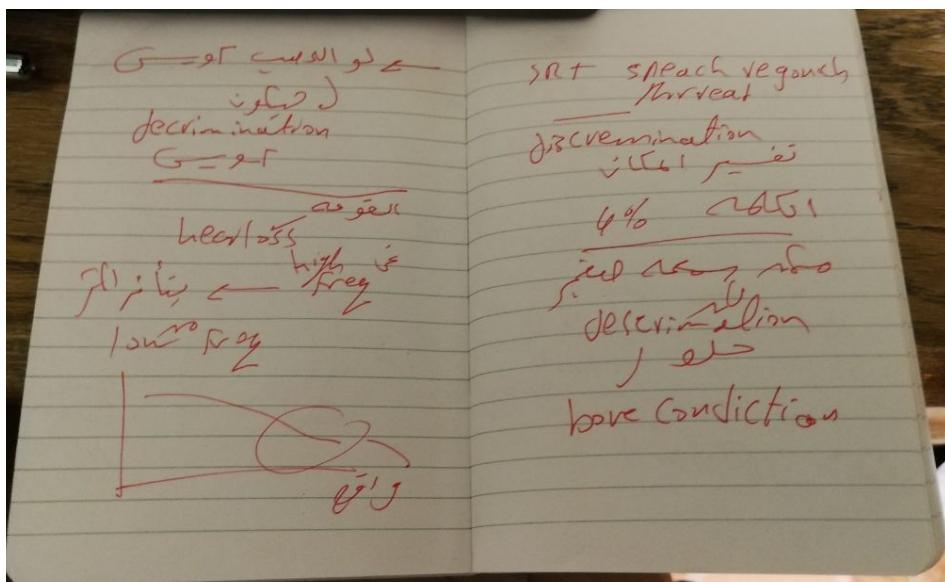
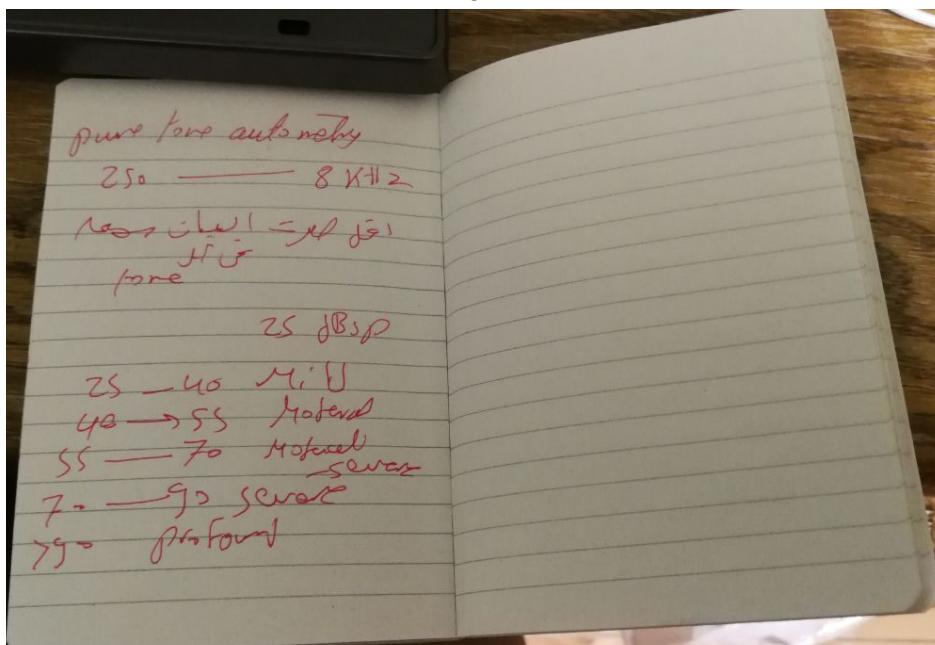
During the explanation from the doctor, there are some discussions in different points like:

- Is it common that patients did cochlear implant operation in both ears? The answer is that it is not common as the operation is very expensive as well as the device is very expensive so normally the patient do only one ear and live with it.
- Normally the first step is the patient try hearing aid device in case of mild and moderate damage for one ear.

- Making two cochlear implant in two ear needs synchronisation between the both the left and right device and this is not easy to be fit. Also in case of two hearing aid devices placed , it needs synchronisation between the two devices (this is called cross fitting hearing aid)
- For babies, the discrimination test is not used and another instrument is used called API.
- Bone conduction is that there is a bone near the drum that transfer the sound rather than the drum so it could be the drum is not well but the patient can hear due to the bone conduction.

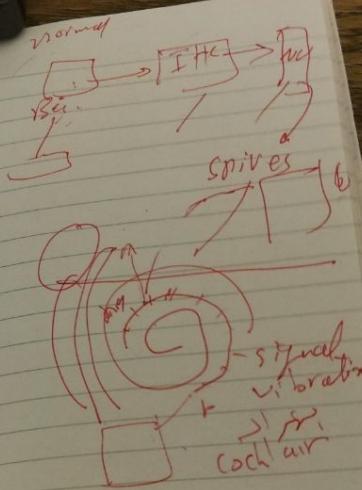
Appendix

Just photos of the notes taken during the visit



ABC

z far?



of acoustic emission

new - 3

Cross fitting, heavily ad

Signal
الرسائل