

## LAPAROSCOPIC APPENDECTOMY:

· Basically the diagnosis of Acute Appendicitis is performed in a hospital. The classic symptoms of a 24 hour pain evolution is in the periumbilical region, which later is located in the right Iliac fossa, it is also associated with other clinical symptoms such as vomiting, fever, palpitations in the region (abdominal rigidity) and bounce (pain when touching abdomen), this occurs 85 to 90 % in the diagnosis of the Acute Appendicitis.

· Although the diagnosis is clinical, there might be a 10 to 20 % of the patient that go to the OR with a diagnosis of acute appendicitis, but really they present other pathologies with symptoms and sign very similar to appendicitis. There is also a 10 to 15 % of patients that have no pain and they can confuse with other pathologies that also cause pain in the described area, but will eventually be appendectomy patient.

In the last 10 years various radiological test have been performed to increase the veracity of the diagnosis in-patient. The ultrasound in the right iliac fossa helps us rule out other pathologies such as gynecological (pelvic inflammations) and obstetric ones (ectopic pregnancies). The ultra sound has sensitivity of 85 to 90% according to recent studies.

The sign of appendicitis according to the ultra sound shows an enlarged wall of greater than 6mm, lack of distensibility of the appendix and the presence of intra abdominal fluid (inflammation). Nonetheless, when the ultra sound cannot visualize the appendix during the study, it does not provide us any other information.

There are studies that show that the USG was very true when the diagnosis of AP Ag was very suggestive by the clinic, but it did not provide additional information when it was not clear. For male patients with some diagnostic doubt, the USG will not help us due to its low sensibility.

For female patients with diagnostic doubts; the USG will be useful to rule out gynecologic causes. Another radiology study can be done with an abdominal CAT Scan. The specificity and sensibility of the CAT Scan is about 90 to 95 %, nonetheless it is an invasive study and very expensive.

### **Diagnosis of Appendicitis, Comparing between the USG and CAT Scan.**

For many years Laparoscopic Diagnosis has been used for the study of atypical pain in the right iliac fossa.

Generally in a laparoscopic appendectomy we perform 3 small incisions. The umbilical one is 12mm (1.2cms) and the other two are 5mm. Aesthetically there are better results. The hospital stay is one day and the recovery is 15 days maximum.

### **The surgical technique has the following steps.**

- 1.- Locating and mobilizing the cecum with a cecal appendix identifier.
- 2.- Dissection of the meso appendix in order to reach the appendiceal artery.
- 3.- Transection of the appendiceal base with endoscopic auto-sutures.
- 4.- Transection of the meso-appendix with endoscopic auto-sutures.

\* The fact that the laparoscopic appendectomy benefits are clear, it is not considered the best option for surgery; this is due to the high hospital cost in terms of the necessary equipment needed and the surgical time needed for the procedure.

\* Nonetheless, for female patients with many diagnostic doubts, any laparoscopic diagnosis that proves an acute appendicitis can be operated with laparoscopy. If these women have regular surgery and it is not appendicitis, the surgery was unnecessary. The use of diagnostic laparoscopy can help us prevent unnecessary surgeries. Other patients that benefit of this technique are obese patients since the incisions in these patients with regular surgery are larger, therefore they would benefit from a laparoscopic procedure.

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