
HISTORY OF LAPAROTOMY FOR MILITARY TRAUMA ACCORDING TO THE ORIGINAL ARABIC MANUSCRIPTS

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ABSTRACT

Albucasis (936-1013 AD) of Andalusia in chapter 85 of the 2nd section entitled 'On wounds of the abdomen, and protrusion of the intestine; and on suturing them' of his book "Al Tasrif" produced the first authentic description ever contained in the literature on the surgery of the abdominal cavity in trauma. Albucasis described 3 types of abdominal tears (small, medium, and large) with a detailed account of reduction of protruded gut with recommended patient's positions during surgery. He then described 5 methods of abdominal wound closure, namely: continuous through and through abdominal wall (mass) closure, interrupted through and through figure-of-8 closure (likened by Albucasis to furriers' sewing), separate continuous layered closure of the musculo-cutaneous and peritoneal layers (Albucasis preferable method of closure), and finally, abdominal wall closure using 2 needles mounted on one thread inserted on both sides of the wound simultaneously with alternative bites and in one direction (likened by Albucasis to shoemakers' sewing).

For haemostasis, Albucasis recommended cautery, ligation, or pressure with a pad soaked in wine and olive-oil or vinegar and olive-oil. Any sign of inflammation required dressing with honey water, oil of roses with or without astringent beverage. While Albucasis documented the spontaneous healing of colonic faecal fistula, he used Arabian ant-nippers for intestinal anastomosis like modern Michel clips and as chemical local antiseptics due to oral ant secretion of formic acid; he was also the first to sew the intestine with fine suture extracted from animal's gut (catgut).

It is concluded that Albucasis is the first surgeon to describe the operative technique of laparotomy in great similarity to our current practice. Such an innovation would entail a heavy commitment requiring 4 essentials, namely: an in-depth knowledge of anatomy, haemostasis, anaesthesia, and anti-sepsis.

INTRODUCTION

Most Babylonian, Egyptian and Greek contributions to surgery were limited to body surface surgery with no attempt to explore the abdominal cavity. **Babylonian Code of Hamurabi** circa 2250 BC represents the first documented reference to surgery in the history of Mankind; it states that reckless surgery must be punished by cutting off the surgeon's hand in retaliation. It will be inconceivable that any surgeon can perform operations in such a hostile environment. **Egyptians** were shown performing the operations of circumcision, castration, reduction of fractures, limb amputations, abscess surgery, and wound dressing. Unfortunately, they had rudimentary knowledge of body structures and abdominal contents despite their interest in embalming (making mummies). **Greeks** made valuable contributions to anatomy, but they did not dissect the human body, because their religion was even more hostile than Egyptians toward an interference with the bodies of the dead. The great Greek physician of Pergamon, **Galen**, (131-201 AD), derived his knowledge of anatomy from the pig, the ape, the dog, and the ox. He assumed that the structures he found in these animals were identical with the structures in the human body. For many centuries, the human breastbone was supposed to be segmented like that of an ape; and the liver to be divided into many lobes like that of a hog; the uterus was supposed to be in 2 long horns as in the dog; and the hip bones to be flared as in the ox. Galen's authority forced generations of Doctors to apply his knowledge of animal anatomy to human beings. When the seats of learning fell into the hands of the Church, his writings became like Gospels and bore the stamp of the Church's authority and infallibility. Such was the hold that Galen's work
