

## Founding the first hernia center in Turkey

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**Abstract** For years, centers dedicated to hernia surgery have been operating in North America and Europe. However, such centers have not been available to patients in most other countries, including Turkey. In 2006, the first Turkish center devoted to hernia surgery, the “Ankara Hernia Center”, was opened. In this paper, we present general information about the center’s construction, staff, practice, patient profiles, and future goals.

**Keywords** Hernia · Hernia center · Ambulatory surgery

### Introduction

For years, centers dedicated to hernia surgery have been operating in North America and Europe. However, such centers have not been available to patients in most other countries, including Turkey. In 2006, the authors opened the Ankara Hernia Center (AHC), the first Turkish center devoted to hernia surgery.

The AHC was modeled on hernia surgery facilities in the United States and Europe. Over the past 2 years, the lead author (H.K.) visited the Lichtenstein Hernia Institute in Los Angeles, CA; the Plymouth Hernia Service in Plymouth, UK; and the British Hernia Centre, in London, UK, where, respectively, Prof. Amid, Prof. Kingsnorth, and

Mr. Kurzer provided useful information about the technical and operational aspects of running a hernia center.

The three hernia centers offered different operational models. Although the Los Angeles and Plymouth centers are more economical, patients in Turkey prefer to be cured in one visit to a single place. Therefore, the AHC founders opted to establish an independent day-surgery center, owned by the surgeons, with its own operating theatre. A location was rented in April 2006, and construction commenced soon after.

In this paper, we present general information about the center’s construction, staff, practice, patient profiles, and future goals.

### Methods

#### Construction

The AHC is in a fast-growing part of Turkey’s capital city, where many modern medical facilities are located. The center was renovated to include three levels: ground floor, basement, and top floor. Plasterboard over metal construction was used to delineate the rooms.

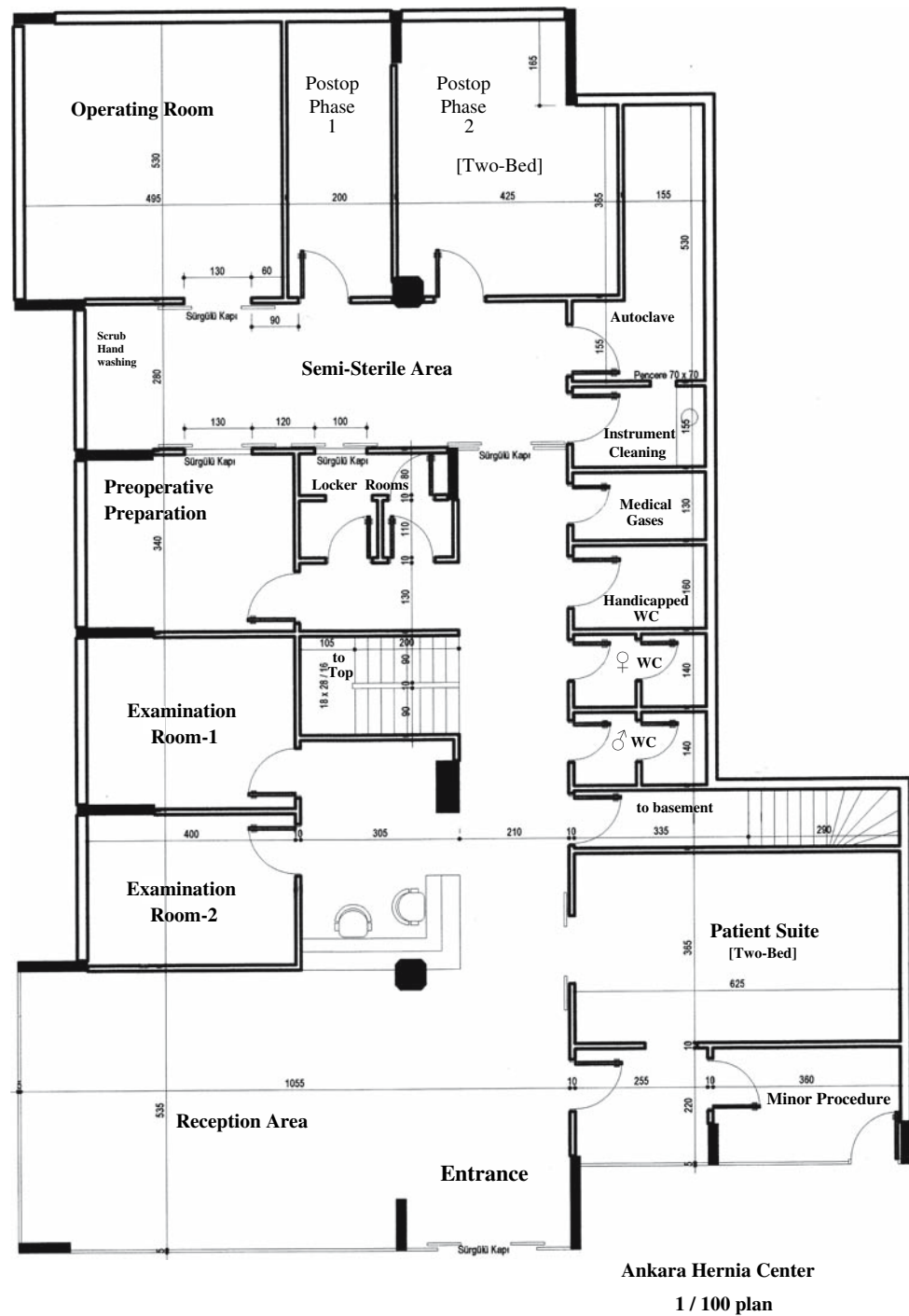
The 300-m<sup>2</sup> medical service area is on the ground floor and includes a large reception area, twin examination rooms, two patient suites with two beds in each, a minor surgery room, a preoperative preparation room, and bathrooms (Fig. 1).

The semi-sterile 100-m<sup>2</sup> operating area, also on the ground level, includes a 26-m<sup>2</sup> operating room with a height of 3.5 m<sup>2</sup>. Antibacterial–antistatic paint was used for the walls, and the floor was covered with top-quality anti-static–antibacterial synthetic material. Oxygen and nitrogen gases are supplied with double lines, and the space has a

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**Fig. 1** A 1/100 construction plan of the center



separate climate-control system with a HEPA filter. The remainder of the operating area includes phase-1 and phase-2 postoperative rooms, a scrub area, dressing rooms, and instrument cleaning and sterilization areas.

Administrative offices are located on the top level. The 90-m<sup>2</sup> basement includes a UPS and an electric generator in isolated rooms, a kitchen, two staff resting rooms, laundry, waste storage, housekeeping supplies, and the patient records archive.

#### Surgical team

The AHC employs two full-time and two part-time surgeons as well as two anesthesiologists (one part-time and one full-time). The AHC director is a member of the American Hernia Society and the European Hernia Society. The other surgeons are member of Turkish Hernia Society. The AHC is also a facility member of the American Association of Ambulatory Surgery Centers.

## Other staff

The other full-time members of the AHC team are the financial manager, the staff nurse, two receptionists, and two employees in charge of catering, housekeeping, and transport. The scrub nurses and operating room personnel are part-time staff and are paid per case.

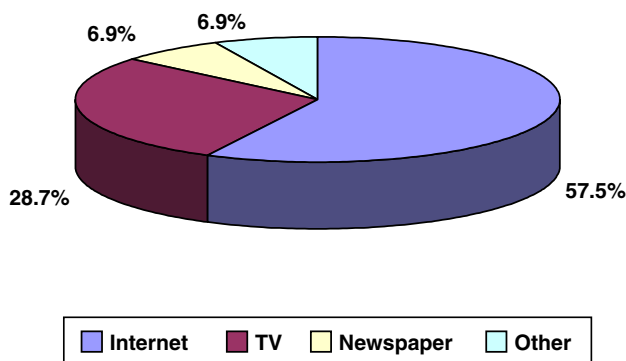
## Practice

According to Turkish Ministry of Health Regulations, inguinal, femoral, Spigelian, and umbilical hernias can be treated surgically in the center. The procedure of choice is open tension-free prosthetic mesh repair. Local anesthesia is employed in the vast majority of the operations, with the aid of intravenous sedation in most cases. Patients may stay overnight (maximum of 24 h), but thus far almost all patients have been discharged 2–3 h postoperatively.

## Data analysis

### Patient profile

It is difficult for new medical centers to attract patients, especially since in Turkey most health services are prohibited by law from advertising. Other methods, such as patient-to-patient, doctor-to-patient, and colleague-to-colleague communications, are valuable but slow to yield patients. However, many patients now research treatment options via Internet search engines (Fig. 2). To attract hits during these searches, the AHC selected the following keywords: “hernia,” “hernia repair,” “inguinal hernia,” “umbilical hernia,” and “Ankara hernia.” The latter phrase was the most specific, with a 27.1% rating. The other keywords had much lower ratings between 3.2 and 5.7% (Table 1). It has been recorded that nearly one in three patients e-mailing the center has come to the center to be operated on for hernia cure.



**Fig. 2** How patients discover the Ankara Hernia Center (AHC)

**Table 1** Keyword hit rates and specificities

Keyword	Hit rate (hit/total hits) (%)	Specificity (hit per shown) (%)
Hernia	61.5	4.7
Inguinal hernia	10.5	3.2
Hernia operation	9.9	5.8
Ankara hernia	7.1	27.1
Umbilical hernia	6.1	3.4
Abdominal hernia	1.3	3.6
Hernia hospital	0.2	5.5

The media may also be a useful area for new institutions. Some patients watch the news and see interviews published in newspapers and magazines, whereas some catch informative health programs on TV channels. In this area, the AHC has welcomed many more patients from TV programs than from other press releases.

## Discussion

In the United States, 70% of the Medicare-certified ambulatory surgical centers are independent [1]. Founding and running an independent center has its pros and cons. AHC is not only an independent facility but also presents a new concept for its country. Therefore the AHC has its own advantages and disadvantages.

The main advantage of the AHC is its autonomy. This is from the point of view of the surgeons. The second advantage is for the patients: more economic surgical service. On the other hand, an independent surgical facility faces a high investment load and maintenance outgoings, while it receives income in smaller installments. It needs to create its own and entirely new patient population slowly over time. The current difficulties and the future goals of the AHC are briefly discussed below.

### Difficulties

- Insurance companies: as “hernia center” is a new concept for Turkey, government and private insurance companies hesitate to enter into contracts with such a center.
- Public unawareness: prohibition of advertising for medical services is the rule in many countries. Therefore, a long time is required for the center to become known in the population.
- Day surgery: this concept is quite new for the Turkish patient population. Some patients still prefer staying in hospital at least overnight.
- Higher investment risk: although an independent surgical facility run by surgeons has complete autonomy, the risk

is higher. The surgeons must provide all capital and guarantee all loans [1].

#### Future goals

- Treatment goals: to achieve high cure and low recurrence rates similar to those seen at hernia centers in other countries [2–4]. Patient satisfaction is the key criterion.
- Professional success: to continue the successful, independent operation of the AHC.
- Scientific data: to present a series of results obtained from the AHC's detailed patient records at the 2010 European Hernia Society Meeting in Istanbul, Turkey.
- Herniology: to conduct scientific research in herniology, including clinical and laboratory studies as well as presentations of patient series.

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