Surgery in Lebanon

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Lebanese Society for General Surgery

Meeting of the European Surgical Society
Malta, 22 – 23 November 2013
Surgery in Lebanon

The history of surgery in Lebanon is quite similar to that of medicine, and the two disciplines were never separated as was the situation in Europe during 1500 years.
SURGERY IN LEBANON
PAST, PRESENT AND FUTURE

- The country of Lebanon
- Development of the specialty of Surgery in Lebanon
- Surgical manpower in Lebanon
- Surgical Education of the Lebanese Surgeons
- Health care system and Economics of Surgery
The Country of Lebanon
The Cedars of Lebanon, symbol of the country

November 23rd 2013
Lebanon

- A small country of the Near East. 10,452 Km²
- The country of yoghurt (*Leben* in the Semitic languages)
- Phoenicia for the antiquity, and Kanaan for the Bible
- A narrow land stretching alongside the Mediterranean sea: 220 km of shores
- A narrow maritime coast, a high chain of mountains & an inner fertile plain
Lebanon

- 3,600,000 Lebanese + 2,000,000 foreigners
- 10 millions of Lebanese descendence in the diasporas (South America, North America, Black Africa, Western Europe, Persian Golf, etc…)

- A parliamentary republic
- A multicommunity society
  - 18 different ethnoreligious communities
- A totally liberal economy
Beirut the capital
Tyre, where Europa was kidnapped by the God Zeus
Lebanon
A country of geographical diversity
Lebanon
A country of religious diversity

- A mixture of Christian and Muslim communities represented in the parliament (128 members)
- Major Muslim communities: Sunnis (27), Shiits (27), Druzes (8), Alaouits (2)
- Major Christian communities: Maronites (34), Greek Orthodox (14), Greek Catholic (8), Armenian orthodox (6), others (3)
Lebanon

A country of religious diversity
Lebanon
A country of religious diversity

November 23rd 2013
Lebanon
A country of cultural diversity

- The old country of the Semitic Phoenicians *(who created the modern alphabet in Byblos)*
- A part of the Roman and Byzantine empire: *with important cultural, religious and linguistic vestiges*
- A part of the Arab empire: *with introduction of Islam and of the Arabic language, official language of the state*
- A land occupied by the crusaders in the Middle ages: *with introduction of roman languages and catholicism*
- A part of the Ottoman empire, during 4 centuries: *a common heritage with many middle eastern and european peoples*
The first written alphabet
The Phoenician Alphabet

The Phoenician Alphabet ~ 1400-1250 BC
Lebanon

A country of cultural diversity
Lebanon
A country of cultural diversity
Lebanon
A country of cultural diversity
Lebanon

A country of linguistic diversity

- **Lebanese spoken dialect** *(derived from Aramean + Arabic + Greek + Turkish + Italian + French)*
- **Arabic** *(official language of the state)*
- **French** *(protectorate between 1920 and 1943)*
- **English** *(globalization era)*
- **Armenian**
- **Others** *(frequently encountered)*
SURGERY IN LEBANON
PAST, PRESENT AND FUTURE

DEVELOPMENT OF THE SPECIALTY OF
SURGERY IN LEBANON
PHOENICIAN MEDICINE

God Shmoun = the eighth kabir
Was consecrated the god of healing 200 years before the Greek Asclepios
ARRIVAL OF MODERN MEDICINE TO LEBANON

The first certified physicians came to Lebanon in the 19th century, mainly French who worked in the quarantine institution (Dr Suquet, Dr Pestalozza).

The first Lebanese certified physicians studied medicine in Egypt (Abou-Zaabal School which became Kasr –el-Aini): (Youssef Jalkh, Ibrahim Najjar, Ghaleb el Khoury, Youssef Merhej Ltaif, Salim Khourchid)
THE FIRST LEBANESE SURGEON

Ibrahim NAJJAR (1822-1864)

- Graduated from Kasr-el-Aini in June 1842
- 3 years training in France
- Chief-Surgeon of the Turkish Military Hospital (Bab Idriss, Beirut) in 1849
- He was the first to remove biliary stones from the gallbladder, (reported by the father of Dr Amin Gemayel, paper written by the latter in 1929)
SURGERY INTRODUCED TO THE NEW LEBANESE HOSPITALS

1. Prussian Hospital (Johanniter): 1867
2. St George Greek Orthodox Hospital: 1878
3. Makassed Hospital : 1878
4. Sacré-Coeur Hospital : 1885
5. American University Hospital : 1906
6. Hotel-Dieu de France : 1923
EVOLUTION TO SPECIALTIES AND SUBSPECIALTIES

Surgery remained one, world wise, until 1950 when new specialties emerged and separated: urology, thoracic surgery, neurosurgery, orthopedics, cardiac surgery etc…

What remained from the old surgery was called general surgery.

In Lebanon, these specialties were progressively introduced in the major hospitals since 1960.
THE REMAINING FIELD OF GENERAL SURGERY

- Digestive Abdominal tract
- Abdominal wall
- Thyroid and Parathyroid
- Breast

- Liver and Bilairy
- Pancreas
- Spleen
- Soft tissues and skin
- Neck
OTHER SUBSPECIALTIES ARE EMERGING

- Colorectal
- Hepatobiliary
- Breast
- Disease-oriented specialties: trauma, cancer, intensive care, endocrine
SURGERY IN LEBANON
PAST, PRESENT AND FUTURE

SURGICAL MANPOWER IN LEBANON
SURGICAL MANPOWER IN LEBANON

DISTRIBUTION BY SPECIALTIES

General Surgery remains the largest group (>700).
One surgeon for 5000 persons
SURGICAL MANPOWER IN LEBANON

EVOLUTION OF NUMBERS

500 in 1995 to 734 in 2002
= 33% increase in 7 years
SURGICAL MANPOWER IN LEBANON

AGE DISTRIBUTION

General surgeons are young (mean = 47 years)
The professional life expectancy is high
SURGERY IN LEBANON
PAST, PRESENT AND FUTURE

SURGICAL EDUCATION OF THE
LEBANESE SURGEONS
MEDICAL EDUCATION OF SURGEONS

1- MEDICAL SCHOOLS OF LEBANON

- Medical University of Beirut: 1867
- Saint Joseph University: 1883
- Lebanese University: 1983
- Arab University of Beirut: 1995
- Orthodox Balamand University: 1998
- Holy Spirit University of Kaslik: 2002
- Lebanese American University: 2008
- Will others follow??
MEDICAL EDUCATION OF SURGEONS

2- ORIGIN OF THE MD DIPLOMA

70% of general surgeons have studied medicine outside Lebanon
MEDICAL EDUCATION OF SURGEONS

3- ORIGIN OF SPECIALTY DIPLOMAS

77% of surgeons have been trained in foreign countries
SURGERY IN LEBANON
PAST, PRESENT AND FUTURE

HEALTH CARE SYSTEM AND
ECONOMICS OF SURGERY
LEBANON has a market-oriented economic system with a developed-like population profile.

- **Urban population**: 81%
- **Population growth rate**: 1.5%
- **Total fertility rate**: 2.5%
- **Gross reproduction rate**: 1.464
- **Life expectancy at birth**: 71 years

\[ \Rightarrow \text{Natality is decreasing} \]
\[ \Rightarrow \text{Mortality is delayed} \]
\[ \Rightarrow \text{Dependence rate is increasing} \]
HEALTH CARE SYSTEM AND ECONOMICS

2- FINANCIAL INDICATORS
Health Expenditures as %GDP : 12.4%
Annual increase of Health Expenditures : >10%

The health care expenditures are continuously increasing in Lebanon, while GDP is stagnant, accompanied by an increase in Net Public Debt.
HEALTH CARE SYSTEM AND ECONOMICS

3- SOURCES OF FINANCING

**Fig III-3: Treasury sources**
- Mutual Fund: 2.9%
- SF: 8.8%
- Army: 15.8%
- CSC: 9.7%
- MOH: 47.6%
- NSSF: 15.2%

**Fig III-4: Sources of private**
- Employer contributions: 11.52%
- Households contributions and premiums: 14.48%
- Household fees for services: 74%
HEALTH CARE SYSTEM AND ECONOMICS

4- DISTRIBUTION OF EXPENDITURES

- Private hospitals 23%
- Public hospitals 2%
- Private non-institutionalized providers 41% (physicians etc…)
- Pharmaceuticals 25%
- Others 9%
HEALTH CARE SYSTEM
AND ECONOMICS

5- HIGH-TECH SERVICES AND HEAVY EQUIPMENT

<table>
<thead>
<tr>
<th>Service</th>
<th>Number</th>
<th>Units per million persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open heart surgery departments</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>Cardiac catheterization laboratories</td>
<td>30</td>
<td>7.5</td>
</tr>
<tr>
<td>Dialysis centers</td>
<td>45</td>
<td>11.25</td>
</tr>
<tr>
<td>Kidney transplant centers</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Bone marrow transplant units</td>
<td>3</td>
<td>0.75</td>
</tr>
<tr>
<td>Specialized burns centers</td>
<td>5</td>
<td>1.25</td>
</tr>
<tr>
<td>In-Vitro Fertilization services</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>Linear accelerator radiotherapy machines</td>
<td>7</td>
<td>1.75</td>
</tr>
<tr>
<td>Lithotripsy machines</td>
<td>27</td>
<td>6.75</td>
</tr>
<tr>
<td>CT Scan machines</td>
<td>60</td>
<td>15</td>
</tr>
<tr>
<td>MRI machines</td>
<td>25</td>
<td>6.25</td>
</tr>
</tbody>
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HEALTH CARE SYSTEM AND ECONOMICS

6- HOSPITAL DISTRIBUTION

170 hospitals = One hospital/21200 persons
12500 hospital beds = one bed/300 persons

Any Lebanese inhabitant should spend more than one day in hospital per year.

⇒ The hospital sector continues to grow in a chaotic manner, with oversupply and unnecessary expenditures.
LEBANESE SOCIETY FOR GENERAL SURGERY

- The official organism regrouping all the general surgeons of Lebanon (> 300)
- Created in 1969
- Regular activities: monthly rotating meetings in all Lebanese hospitals; yearly conference; participation to regional associations and meetings

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LEBANESE SOCIETY FOR GENERAL SURGERY

- Collaboration with regional and foreign surgical societies
  - Pan Arab Association of Surgeons
  - Association Française de Chirurgie
  - Royal Belgian Surgical Society
  - Société de Chirurgie de Lyon
  - British Royal Society of Medicine

- Eminent foreign surgeons participated to the annual conferences. Some of them became honorary members of the LSGS
EXAM OF THE LEBANESE BOARD OF GENERAL SURGERY

- Instituted by the LSGS in 2000
- Constituted of two parts:
  1. Part I: written exam (Basic Sciences 90 MCQ; Clinical Sciences 120 MCQ)
  2. Part II: Oral exam (Long clinical case; Short clinical cases; Surgical Anatomy and pathology)
- Applicants to Part I should have completed at least 4 years of surgical residency.
- Applicants to Part II should possess an academic degree in General surgery
- One or 2 eminent foreign surgeons are invited to the Part II sessions and contribute to the applicant’s grading

November 23rd 2013
Accredited for 10 years only

November 23rd 2013
Welcome to Lebanon in 2014