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### **COST OF PELVIC FLOOR SURGERY**

# Aims of Study

Costs play an increasing role for the management of hospitals. Reasons for this development are the limitation of resources, the pressure to use "low cost/high income"- treatments, the competition between different subspecialties in the recruitment of patients, changing demographics and a general trend to centralisation of certain types of medical treatments. Most cost studies have been performed in the USA, most of them dealing with the cost of anti-incontinence surgery. Since hospital funding systems differ a lot between countries, comparisons are often difficult. Only few data exist on the cost of prolapse surgery. So far no data are available concerning the cost of pelvic floor surgery in Austria. The aim of the study was to evaluate the amount of money earned by hospitals funded by the so-called "Hospital Financing Fund" (finances all public and some private hospitals) for all types of pelvic floor surgery and to estimate the importance of this type of surgery for the financial situation of departments of different subspecialties.

#### **Methods**

In 1999 Austria had 8,1 million inhabitants (51,4% females), a gross domestic product (GDP) of 197,09 billion Euro (€) and total health care expenses of 16,11 billion € (8,2 % of the GDP). The estimated frequency of urogynecological disorders as a main diagnosis for admission to a hospital is 18 000 per year, as a second diagnosis 12 500. The data of all Austrian "Fund-Hospitals" (147 hospitals representing 72% of the total bed capacity including nursing homes and rehabilitation centres) reported to the central funding agency were analysed and the amount of money spent for pelvic floor surgery was calculated by multiplication with the standardised average cost of each type of operation using the exact data of one reference hospital. The value of a specific type of operation is expressed in points and calculated by averaging the exact cost calculation of 17 reference hospitals from different regions (urban and rural) and of different equipment levels. Weighing factors for different hospitals modify the amount of money a hospital gets from the funding agency for a specific number of points. Therefore an average amount of money for each type of operation was used to estimate the real cost of pelvic floor surgery for the community. A differentiation of the subspecialty performing the surgery was impossible by means of the nation-wide data. Therefore the income balance of a university hospital was used to estimate the relative financial input of pelvic floor and anti-incontinence surgical procedures to the whole income of three departments performing pelvic floor surgery in relation to their total income.

## Results

6828 operations for the correction of genital prolapse (n=3066) or urinary stress incontinence (n=3762) worth € 26,3 million were performed in 1999. 3644 operations worth € 21,45 million were performed for other reasons (Frequencies: male incontinence 132, rectal prolapse 446, rectal extirpation 2054, urethral malformation 748, fistula 158, other 106). In sum, a total of € 47,74 million was spent for pelvic floor surgery (including 2054 rectal extirpations) accounting for 0,30 % of the total health care expenses of Austria.

In the year 2000, 3263 operations (worth  $\leq$  15 million) were performed because of prolapse (an increase of 6,4% as compared to 1999) and 4340 operations (worth  $\leq$  14 million) were done for the treatment of stress incontinence (an increase of 15,4%). The number of colposuspensions decreased by 28% from 954 to 685 operations, whereas the number of other anti-incontinence procedures, especially TVT-operations increased by 30,2% from 2808 to 3655 procedures.

At our University hospital pelvic floor operations accounted for 2,64% (n=86) of the number, but 12,91% (3 million €) of the income (including hospital stay) of the urologic department, 2,25% (n=106) of the number and 6,50% (7,77 million €) of the income of the OB/GYN department. Only 18 typical pelvic floor operations were performed at the surgery department (277 procedures were performed for other reasons, especially hemorrhoidectomies). The main type of operation was prolapse / incontinence surgery at the gynecological department (100 of 106 operations), and correction of malformations (50 of 86 procedures) at the department of urology (19 prolapse / incontinence operations).

### **Conclusions**

Pelvic floor surgery plays an important financial role for departments of urology and gynecology, because a small number of interventions result in considerable income. 0,3 % of the total health care expenses are spent for pelvic floor surgery performed in public community hospital settings. The introduction of the TVT-

procedure resulted in a considerable overall increase of the number of performed anti-incontinence operations and in a reduction of performed colposuspensions of almost one third within one year. The impossibility to extract relevant data from the data of the funding agency and the lack of cost-effectiveness studies especially in the field of prolapse surgery are in apparent contradiction to the high number of performed procedures each year.