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Ambulatory surgery in the residents' training programme

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Abstract

Ambulatory surgery incorporates more centres and more procedures every day. The consequence is that the percentage of some procedures undertaken on an ambulatory basis is so high that they almost disappear from inpatient hospitals. The resident doctors teaching programs have not been modified parallel to these changes in patient management. This study analyses this situation and proposes the inclusion of ambulatory surgery in the rotations of resident surgeons, together with suitable programs and goals.
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1. Introduction

The teaching and practice of surgery are, or should be, compulsorily linked; each is essential for the existence of the other and changes that affect one, inevitably affect the other.

Ambulatory surgery (AS), with restricted indications at the beginning, has expanded its indications and now accounts for 50–60% of the whole of elective surgery in some countries. This was reflected in a study by the American Hospital Association in 1994 that published the percentages of the procedures carried out using AS in the US in comparison with surgery involving hospitalisation. Both the number and percentage of ambulatory surgery were increasing progressively.

In view of so many and such rapid changes, Puente Dominguez [1] says that the Association for Surgical Education, founded in 1981 and which holds annual meetings to deal with problems related with the training of surgeons, should now ask: for what type of surgery are we going to train surgeons? Will it be possible to foresee what kind of surgeons will society need in the year 2000? By changing the health aid systems, is there a parallel change in the training programs? Is surgery teaching advancing in the same direction as the technical and structural advances in the performing surgery? The answer to most of these questions is clearly 'no'. Why?

AS is not new. It was already being used at the beginning of this century. When AS re-emerged, terminology and contents were mixed up until slowly the current AS concept started to settle down [2]. This re-emergence is due to the confluence of three circumstances: increasing service demand, appearance of waiting lists and limitation of resources.

The limited resources are competed for, probably due to a lack of understanding, by other aspects of healthcare that are inseparable from direct patient care, such as research and teaching. In the US, the public health reform is orientated towards aspects like accessibility and expenditure. Unfulfilled support has been given to the first and almost total attention has been centred on financing. In this scheme of 'managed assistance', teaching is no longer a priority because it is considered to be unprofitable and a cost-creating centre, and in this way a system is found that is well catered for from the patient-care point of view, but very neglected when it comes to teaching and research.

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2. Necessary changes on teaching programs

The most progressive AS centres pick up on this concern and suggest different methods of resolving the problem.

Stone and Doyle [3], of the Surgery Departments of Harvard and Boston, respectively, suggested drastic changes in medical training starting in the preclinical years and continuing during the clinical-surgical stage.

2.1. Undergraduate

Medical students should get introduced to:New economic principles of 'managed assistance'.Basic knowledge of the forces that rule efficiency in proportion to expenditure.Knowledge of cost calculation, utility margins, etc.Creation and use of algorithms and clinical paths to make the medical attention more dynamic and rational.Result evaluation and quality measurement.Mental preparation for their integration into a public health organisation.

In 1997, M. Seabrook [4] and Baskerville [5] described a teaching model for the training of medical and nursing students in the surgical practice of a day surgery unit (DSU). The program was started in January 1995 and from then onwards has been modified as a consequence of the evaluation of the results by the staff and students.

2.2. Postgraduate

For the resident surgeon, there are three reasons that justify training in an AS unit: technical education, teaching in structural and organisational aspects and management participation.

3. Technical education in DSU

In his article 'The day unit as a teaching environment', Jarre [6] asked: "What can be taught in a day surgery unit?" and points out the following aspects: The most common surgical techniques that are used in a DSU.The anaesthetic techniques employed that allow a rapid recovery with infrequent adverse effects, pain, drowsiness or sickness.The DSU is the ideal place to learn local anaesthestic techniques.

During the second Spanish Congress in AS held in Seville in 1995, the ambulatory procedures undertaken and the volume of each of them in Spain were made public [7]. Their analysis makes us demand specific training of resident surgeons in AS units, since the percentage of some procedures undertaken in these units is so high that either they are learnt in these units or they are not learnt at all.

The technical education of the resident as regards AS procedures is not at all different from the training he has to follow for any other kind of procedure. It is a scaled training where at the beginning there is much tutorial and no responsibility but finishes with much responsibility and no tutorial[8].

4. Teaching in structural and organisational aspects

Not only technical education is important. There are also many other aspects the residents should know about, such as selection of patients and inclusion criteria, patient information, patient circuits, postoperative analgesia, guidelines for safe discharge and evaluation of results.

Residents of anaesthesiology and surgery need to know perfectly the criteria of selection and inclusion of patients in AS. Bad results are frequently related to wrong selection. They have to apply the following criteria: protocoled procedures, free acceptance of AS, adequate social habitat and ASA physical status 1, 2 and stable 3.

Preoperative and postoperative information and the circuit of patients are other aspects in which the resident should be trained, since it is very similar in most of the units, as well as the control type.

5. Management participation

Surgical training and practice are necessarily linked and are both subject to governmental and market forces. A wide-ranging revolution in the approach to teaching, especially in the US and the UK, is so-called 'managed assistance'. Surgeons' education in this aspect is fundamental, which is described by Gil Goñi [9] in his article: 'management education; a need for surgeons'. The resident doctor is not a cheap labourer but his costs are a good investment if adequate education is achieved. Unfortunately, teaching is considered cost creating. This is an error because the system will only work efficiently, when cost saving goes together with the maintenance of or an increase of the quality of the assistance. To practice surgery in a managed assistance model, it first has to be learnt. Managers should know that the quality of medicine depends upon the quality of teaching and the preparation of professionals. Surgery teachers must warn that if surgeons are not taught and prepared for efficient assistance at a competitive cost, surgical practice will be out of date and inefficient within a short period of time.

6. Resources for efficient teaching

Efficient teaching needs professionals with an open mind as preparation for this new modality of assistance, means such as a suitably prepared hospital with a defined program, adequate installations, rooms for clinical sessions and for seminars, audio-visual equipment, TV circuits in operating rooms, etc., are required.

Some models have been proposed for the training of specialists in an AS unit:Another rotation in the resident training program.On the job training during the whole resident period.Mixed: parting from a rotation, the resident surgeon continues the assistance but alternating with other activities during the rest of the training period.

Each system has its advantages and disadvantages and should above all adapt to the characteristics and goals of the particular speciality. The evaluation of the results will mark the changes that have to be introduced.

In 1992 the Valme hospital area, with the Valme University Hospital as a reference, started an AS program, mainly in Tomillar Hospital. This is a Type III unit where the selected procedures are 100% protocolised and are being integrated gradually into the surgery services.

Analysis of the surgical activity in this unit and the resolution levels of some procedures, made us think of modifying the rotation programme of residents and including an AS unit rotation into their programme.

Although the programme change has been well received and the resident doctors themselves consider that it is an important and very useful improvement, they have suggested a second rotation period in the AS unit.

7. Conclusions

At present, there are few publications about AS teaching. Although we can find programmes, projects and suggestions, it is impossible to find results. There are many questions to solve. The Spanish Commission of Anaesthesiology has already included AS in its official training programme. It is the first step. It is hoped that surgeons and other specialities will do the same in the future in Spain.

References

[1] Puente-Domínguez JL. El residente de cirugía. Cir Esp 1992;51(2):85–6.
[2] Rüssell RC. Day-care procedures. Br J Hosp Med 1996;55(8):463.
[3] Stone MD, Doyle J. Influencia de la enseñanza en la práctica quirúrgica. ¿Se necesitan controles? Clin Quir NA 1996;1:1–10.
[4] Seabrook M. Day surgery teaching project. Second International Congress on Ambulatory Surgery. London. 15–18 April 1997.
[5] Baskerville PA. Teaching undergraduates in Day Surgery. Second International Congress on Ambulatory Surgery. London. 15–18 April 1997.
[6] Jarrett PEM. The day unit as a teaching environment. Br J Hosp Med 1996;56(6):279–81.
[7] Prieto Rodríguez A. Situación de la Cirugía Mayor Ambulatoria en Andalucía. II Congreso Nacional de Cirugía Ambulatoria. Sevilla. 26–27 Octubre 1995.
[8] Sharp RJ, Wellwood J. The training implications of day-case surgery. Br J Hosp Med 1996;55(8):472–5.
[9] Gil Goñi A. La formación en gestión. Una necesidad para los cirujanos de hoy. Cir Esp 1992;51(6):399–400.