

Development of Day Surgery in Italy

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The concept of Day Surgery in Italy was first put to use in the late '80s at the Children's Hospital, "Bambin Gesù", in Rome, close to the Vatican City. The project had a very good outcome and was extended to adult care, but still as an individual initiative.

Being a pioneer in prosthetic inguinal hernia repair under local anaesthesia,¹ allowed patients early ambulation and oral intake; and a pain free post operative period; staying in the hospital for a week was unacceptable. Whereas, the trend in the country was a hospital stay of eight days for inguinal hernia repair! However, I couldn't go against the "common sense" of that age. Therefore, my patients experienced a strange kind of 'holiday': playing cards, chattering, watching football matches and movies together.

In 1995, the Italian Society for Ambulatory and Day Surgery (SICADS) was founded, primarily to promote the scientific basis of this innovative way of care. The 1st National Congress was held in Milan in January 1997. My presentation was "The Ambulatory Surgery, between mirage and reality",² an apt title for that time.

Initially, for less than 48 hours stay in the hospital, only 40% of the expense was reimbursed by medical insurance. Therefore, the hospital administration had no advantage

promoting Day Case Surgery (DCS).

But, the patients stay of two nights, admitted the day before surgery and discharged the day after, was a big progress, compared to the eight days of earlier years.

In 1999, due to government pressure, hospitals were forced to perform 70% of cases, in some pathology, in DCS, but to reduce costs for public administration, these cases reimbursed at 80%.

In 2001, finally government did the more obvious and wanting thing: stated that DCS would include a stay in the hospital of less than 24 hours: as One Day Surgery (ODS), or without overnight, as Day Surgery (DS). 80% of surgical cases, like inguinal hernia, would be treated this way. Therefore, hospital stay of longer than 24 hrs, needed a justification; for example: operation for strangulation, associated severe illness, complications, etc. But, staying in hospital longer than 24 hrs, if exceeded 20% of all operated cases, would not be reimbursed.

This year there has been an explosion of the DCS in Italy. Many DCS unit were founded. Since then, the annual National SICADS Congress has been one of the most attended meetings! Encouraging a flourish of regional SICADS meetings.

Any surgeon with five years of experience, or a patient exposed to Day Case Surgery, would always opt for this option of treatment. The government may or may not have saved on expenses, but, surgical care has greatly improved. Over a period of time, a great deal has been discussed, proving Day Case Surgery to be better modality, not only from a surgical

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point of view, but, also it has improved over hospital-stay-treatment as a whole.

Our hospital has an independent multidisciplinary Day Surgery unit, which works 12 hrs every day. Patients arrive early in the morning, ready for surgery, having consulted and prepared few days before. Every step is regulated by protocols and rules of the DCS unit. Operations are performed in the morning; then the patient is in observation for a few hours. At 4 pm, the surgeon checks the patient, at 5 pm the anaesthesiologist does the same by her/his point of view and then, by 6 pm, patient is ready to be discharged. If a patient has a problem that can't be solved promptly, she/he is transferred to inpatient service. The unit is finally closed for the day at 7 pm.

This unit caters to surgical cases from general surgery, urology and orthopaedics.

ENT-oculist service, patients operated for cataract, has only a reclining chair, instead of a bed and is discharged quickly, same as patients undergoing excision skin neoplasm.

In this service we have 2-3 ODS beds for patient having 'social living problems' (living alone or with a non-reliable person, living in a high-rise building without lift, living too far away from hospital, without telephone, mental disorder, etc.) or having had spinal or general anaesthesia (not as a rule), or having been operated late in the afternoon.

However, still the stay in hospital for these patients is no longer than 24 hrs.

The organization of ODS must be very meticulous to get best results. It begins with selection of the patients, which needs a very careful history and a meticulous description of the pathway they have to go through.

If operation is possible with local anaesthesia, it is essential to have a very good rapport with the patient to get her/his

confidence, because in this case the patient is not passive, but acts as an active-apprehensive subject and we need her/his co-operation. When operation is completed without experiencing pain, she/he is the happiest person!

In this way, we have more and more patients asking to be treated in DCS and are particularly satisfied when they hear that it will be possible to perform this particular surgery under LA. This means, in the patients' eyes, the surgical pathology is not so severe. Therefore, operation will not be difficult and they can be home for dinner with their family.

An independent multidisciplinary unit is the best way to manage DCS, because if you have some dedicated beds for DCS along with in-door service of General Surgery, then, you will have patients operated for inguinal hernia or varicose veins recouping beside patients with gastrectomy, colectomy or peritonitis, for instance. With the same nurses having to care for both these category of patients. The striking difference of illness will invariably result in more care for operated supra-major cases, causing a lack in the care for DCS patients, making outcome in these patients unfavourable.

DCS patients, those without overnight stay (DS), need concentrated care within a short time frame. Therefore, the protocol pathway has to be meticulously gone through, the quality of the care is affected because, and patient's problems are neither prevented nor resolved quickly. They become anxious and suspicious, instead of confident with their situation and invariable refuse to go home. Patient's relationship with nurses and surgeons get strained because they see that other patients are receiving more attention and care, without understanding why. Sometimes, necessitating lengthy

explanations.

In our institution, (Presidio Sanitario Gradenigo, Torino, Italy), in the year 2003-2004, we performed 832 inguinal hernia repair, out of which, 42 (5%) stayed back in the hospital for longer than 24 hrs. The rest were as: 387 as ODS and 393 as DS.

From 1991, we are performing repair of inguinal hernia with tension-free and suture-less method as described by Trabucco,^{3,4,5} 60% of which is under local anaesthesia. This technique, to our mind and experience, is the least invasive: the pre-shaped polypropylene mesh is left without any suture in the inguinal box after careful dissection of the hernia sac, which is then inverted with a suture, if direct or simply reduced, if indirect.

Only 7 ODS patients, (1.8%) could not be sent home due to complications. All DS patients, repaired under local anaesthesia, planned as out-patient, were sent home by 7 pm. Nobody needed a re-admission in hospital after discharge.

The 7 patients, who overstayed, had an average age of 68.3 yrs and all were operated under spinal anaesthesia. The hernia types were: huge scrotal; bilateral, recurrent (posterior open approach) and one with hydrocoele.

The complications that occurred in these cases were:

- Early seroma (2 cases)
- Urinary retention
- Urinary retention with haematuria
- Fever
- Headache, post spinal anaesthesia
- Cardiologic problems in ASA IV patient.

At the end, we had: 1.8% of prolonged stay in hospital, plus, 5% planned stay in hospital, longer than 24 hrs. 93.2% patients, of inguinal hernia repair, were discharged as DS,

showing high patient satisfaction and very good clinical results.

Elderly patients benefit the most from DCS organization.

In our Institution, over a period of 3 yrs (2003-2005), we have performed surgery on 1,493 patients, older than 64 yrs., as DCS. In Table 1, the details of the cases have been mentioned. 3 out of 4 operated cases of inguinal hernia require overnight hospital stay.

Cases requiring wide excision for skin tumours, require overnight hospitalisation. This is only due to the extensive surgery which means a reconstruction in the form of a rotation-flap or if their general condition is poor.

Differences between inguinal hernia operated as DS and ODS:

DS

- Simple hernias
- Patient in good health (ASA I-II) and with good domestic set-up
- Surgeon skilled in administering local anaesthesia
- Can be operated under local anaesthesia
- Early ambulation

ODS

- More complex and complicated hernias
- Severe associated disease

Table 1 : Patients over 64 yrs old – (2003-2005)

	Total	DS	ODS
Skin tumour	818	742	76
Inguinal hernia	450	117	333
Non-ing. Hernia	29	12	17
Proctology	45	20	25
Var. Veins	107	13	94
Others	46	26	18
Total	1493	930	563

- Less experienced surgeon
- Spinal anaesthesia
- Late ambulation
- Urinary retention
- Headache, nausea, vomiting

In conclusion:

To get best results in DCS, it is important to:

- Carefully select the patients
- Detailed information of the patient
- Extensive use of local anaesthesia
- Minimal invasive procedure (e.g. use of mesh)
- Early ambulation
- Prevention and early treatment of systemic and local complications.

In the same period (Table 2), 46 patients, older than 90 years, were operated (that are comprised in the cases of Table 1). We think that it is very important for elderly patients to go back home as soon as possible and to resume normal life.

Table 2 : Patients older than 90 years (M: male – F: female) (2003-2005)

	Total	DS	M	F	ODS	M	F
Skin T.	43	38	10	28	5	2	3
Hernia	3	-	-	-	3	2	1
Total	46	38	10	28	8	4	4

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REDUCING REPERFUSION INJURIES AFTER MYOCARDIAL INFARCTION

Masafumi Kitakaze and colleagues aimed to assess the effects of either human atrial natriuretic peptide or nicorandil given intravenously after reperfusion treatment, on infarct size and cardiovascular outcome. They showed that patients who were given atrial natriuretic peptide had smaller infarct size, fewer reperfusion injuries, and better outcomes than controls. Intravenous nicorandil did *not* affect these primary endpoints, although oral nicorandil during follow-up did increase left ventricular ejection fraction between the chronic and acute phases.

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