

EDITORIAL

Perioperative care of older persons: where are we?

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Perioperative geriatric medicine has cinder-color hair, but not due to the advanced age: in the current time and in the majority of the European institutions dealing with health, this issue is in fact – like Cinderella was – a neglected subject, not invited to dance in the ballroom of the hot topics to be effectively organized and managed in a modern hospital (1,2). This, despite the fact that this patient group currently represents half of the surgical population in the majority of the advanced countries.

In Italy, a part from the 49 dedicated orthogeriatric centres registered by the GIOG (Gruppo Italiano di OrtoGeriatría, a subsection of SIGG) (1,3) no private or public hospital has so far started up a Department of Geriatric Surgery or developed a diagnostic and therapeutic clinical path (PDTA) dedicated to the older surgical patient. However, although present in a limited number of hospitals, the concept and practice of ortho-geriatrics are well-established realities (4-6), whereas – except for the Geriatric Surgical Area at the INRCA during the years it was directed by the author (2008-2012) and a Unit of Geriatric Surgery operating at the Campus Biomedico University Hospital in Rome – no elderly-dedicated program, based on a structured model or in accordance with the system approach methods, results to have been implemented in any national hospital with reference to surgical conditions other than orthopaedics. As a consequence, wide epidemiological areas such as oncologic or cardiovascular surgery remain deprived of organizational measures specifically conceived exactly for the widest part of their actual users.

Causative factors for such a situation are many. First, the population aging occurring in the last decades caught off-guard the medical establishment, forced to cope with an increasing number of older, comorbid and not rarely frail subjects; moreover, having geriatric medicine been introduced in public Italian hospitals in the '50s-'60s, and being the Departments of Geriatric Medicine only operating in major and academic hospitals, a routine availability of appropriate, updated and patient-focused standards of care for geriatric patients often remains an unmet need in many hospitals and in many clinical areas.

Secondly, the majority of professionals currently operating in the surgical departments of our hospitals didn't receive education in geriatrics neither during their graduation nor their post-graduation training; this implies that in many cases, far from being conceived in accordance with the assets, patterns and expectations presented by the elderly patients, both the criteria and the approach adopted to treat them are often borrowed from the standards of care that are usually adopted in the treatment of adult, more fit and less complicated patients.

Third, even though it is well known that in geriatric surgery there is a high rate of postoperative complications (most of them preventable but rarely prevented through appropriate measures) and that related economic and human costs are high, a set of structured improvement actions has so far almost never been undertaken by any Medical Services Management, any Hospital Direction Panel or any institutional body in charge of the public healthcare. Thus, a datum that

should lead to a rational redesign of the existing praxis only results in a cautionary approach from surgeons and anesthetists (7,8), who often invoke advanced age as a valid motivation to refuse surgical treatment to geriatric patients. Scientific societies too are not fully exempt from responsibilities, none of them having so far issued a set of recommendations or a synopsis of best practice principles; up to now, the only text on this subject made available to its fellows is the Italian translation of the two US documents issued by the American College of Surgeons & American Geriatric Society (9,10), that have been recently circulated by the Italian Society of Geriatric Surgery.

Last but not least, interdisciplinarity, inter-professionalism and collaborative models of assistance, that are substantial to perioperative geriatric medicine and imply that surgeons, anesthetists, nurses and geriatricians work every day side by side, require a complex path to be obtained, aimed to reconcile professional differences and conflicting visions and to define a shared knowledge (11) as a premise for the implementation of a team-based clinical practice (12)

The history of Geriatrics in Europe finds in the leading position the United Kingdom, that first conceived an organizational model for this specialty, from which - years later - many countries took inspiration. Among many who contributed to the birth of geriatrics in the UK (13,14), two researchers also assisted in the birth of geriatric surgery: Marjory Warren and Lionel Cosin. Warren (1897-1960), the "mother of geriatrics", operated at the West Middlesex Hospital for a long time. She first reported about the scarce interest and inappropriateness of care toward the older patients in the surgical department, condemning the lack of rehabilitation treatment and of multidisciplinary approach; it is to her that we owe some fundamentals of geriatric care, such as the need of individually based patient's assessment, the definition of care programs matching to patients' needs and the importance of an elder-friendly environment both at home and in hospital buildings. Also, she among the firsts individuated that the patterns of geriatric patients include multiple pathology, cryptic or non-specific presentation, rapid deterioration if treatment is lacking, high incidence of secondary complications, vulnerability to adverse environment and need for active rehabilitation (15). Re-

markably, she was also the first who stated that "geriatrics is an important subject for the teaching of medical students and should form part of their curriculum".

Lionel Cosin (1910-94), one of the eight founder members of the British Geriatrics Society and pioneer of ortho-geriatrics (16), started working at the Orsett Hospital, where he soon became responsible for 300 chronic sick beds in addition to his surgical commitment. In accordance with the standards of care of that period, older chronic patients were kept in bed, with no expectation for improvement and no attempt at rehabilitation. He decided to submit to surgery some older patients, who not only survived but also left the hospital within a reasonable time interval. Two of his statements went down in history: "These patients were suffering not from chronic sickness but from chronic neglect" and "Bed is bad". In 1950 Cosin was asked to develop a geriatric service in Oxford, where he put to good use his previous experience, arriving to reduce significantly the postoperative hospital stay. His most original idea was the Day Hospital for the Elderly; his principal interest was rehabilitation.

When in 1948 the National Health Service came into light, many of the concepts devised by Warren and Cosin were inserted in the program, mostly with reference to the improvement of medical services for older people, the training of those caring for them and research into their needs. When in 1978 the Italian National Health Service started to operate, the British experience served as a reference model, however the problems related to the elderly population remained unrecognized till 1994, when the Progetto Obiettivo Anziani was instituted.

In the meantime, the volume of surgical activities for the elderly has increased remarkably, but neither with the needed clinical governance nor with the due system approach. Available tools for improvement can be found in two recent guidelines issued from the European Society of Anaesthesiology (17,18), where indications are provided about postoperative delirium prevention, diagnosis and treatment and about preoperative evaluation and surgical risk assessment in these patients. Also, a paper from an Italian interdisciplinary panel on outcomes after colon surgery in the elderly (19) is in press, and a summary of best practices in perioperative geriatric medicine is under development by the same multidisciplinary expert panel.

Perioperative geriatric medicine is a complex field, where surgeons, anesthetists, nurses and, whenever possible, geriatricians interlace their knowledge, their methods and their approach. Given the enormous differences between acute and chronic care, the task of combining multimorbidity, frailty and reduced resistance to stressors with the range of sharp situations accompanying the acute occurrence of surgical stress requires a fine tuning among contrasting demands, approaches and solutions. Like a challenging score where high and low sounds properly overlap, conducting this phenomenon requires to be orchestrated with knowledge, passion and chemistry: so, the topic waits for champions. But we should never forget that the verb “to neglect” becomes - at the future tense - “to lose”.

References

1. Partridge JS, Collingridge G, Gordon AL, et al. Where are we in perioperative geriatric medicine for older surgical patients? A UK survey of geriatric medicine delivered services in surgery. *Age Ageing*. 2014; 43(5): 721-4
2. Bettelli G. Geriatric surgery and anesthesia: a plea for room and attention in Gerontology & Geriatrics: Research. *Gerontol&Geriatr Res*. 2016; 2(1): 1055-6
3. <https://www.sigg.it/gruppo-di-studio/gruppo-italiano-di-ortogeriatra-giog-sigg-aip-sigot/>
4. Tarazona-Santabalbina FJ, Belenguer-Varea A, Rovira E, et al. Orthogeriatric care: improving patient outcomes. *Clin Interv Aging*. 2016; 24(11): 843-56
5. Grygorian KV, Javedan H, Rudolph JL. Orthogeriatric care models and outcomes in hip fracture patients: a systematic review and meta-analysis. *J Orthop Trauma*. 2014; 28(3): e49-55. The impact of an orthogeriatric intervention in patients with fragility fractures: a cohort study. *BMC Geriatr*. 2019; 19(1): 268
6. Abrahamse C, Nørgaard B, Draborg E, et al. The impact of an orthogeriatric intervention in patients with fragility fractures: a cohort study. *BMC Geriatr*. 2019; 19(1): 268
7. Pinto BB, Rached MA, Walder B. Risk prediction instruments to guide perioperative care in elderly patients: a basic necessity. *Eur J Anaesthesiol*. 2018; 33(12): 875-877
8. Gurman GM. Your patient is old. How old? Editorial. *ESA (European Society of Anaesthesiology) Newsletter* 2019; Issue 79
9. Chow WB, Rosenthal RA, Merkow RP, et al. Optimal preoperative assessment of the geriatric surgical patient: a best practice guideline from the American College of Surgeons National Surgical Quality Improvement Program and the American Geriatric Society. *J Am Coll Surg*. 2012; 215(4): 453-86
10. Mohanty S, Rosenthal R, Russel MM, et al. Optimal perioperative management of the geriatric patient: a best practice guideline from the American College of Surgeons National Surgical Quality Improvement Program and the American Geriatric Society. *J Am Coll Surg*. 2016; 222(5): 930-47
11. Sarli L, D'Apice C, Rossi S, et al. Interprofessionalism and interprofessional research: a challenge still to be won in Italy. *Acta Biomed*. 2019; 90(11): 5-7
12. Bettelli G (Ed). 2017. *Perioperative Care of the Elderly: Clinical and Organizational Aspects*, Cambridge: Cambridge University Press
13. Barton A, Mulley G. History of the development of geriatric medicine in the UK. *Postgraduate Medical Journal*. 2003; 79: 229-34
14. Howell TH. Origin of British geriatrics. 1976; 69(6): 445-9
15. Powell C. Whither Geriatrics: do we need another Marjory Warren? *Age Ageing* 2007; 36(6): 607-610
16. Wilson H. Orthogeriatrics in hip fracture. *Open Orthop J*. 2017; 11: 1181-1189
17. Aldecoa C, Bettelli G, Bilotta F, et al. European Society of Anaesthesiology evidence-based and consensus-based guideline on postoperative delirium. *Eur J Anaesth*. 2017; 34(4): 192-214
18. De Hert S, Staenders S, Fritsh G, et al. Preoperative evaluation of adults undergoing elective noncardiac surgery: Updated guideline from the European Society of Anaesthesiology. *Eur J Anaesth*. 2018; 35(6): 407-465
19. Basso C, Gennaro N, Dotto M, et al. Determinants of short and long-term outcomes in patients undergoing colorectal surgery in North-Eastern Italy: the impact of age and comorbidities, as measured by the Adjusted Clinical Group System (ACG). *Ann Surg*. In press

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