Hernia (2012) 16:237–238
DOI 10.1007/s10029-012-0914-5

INVITED COMMENTARY

Invited commentary by E. Nilsson to the use of hernia registers for improving patient outcome (manuscripts by Stechemesser et al. and Muysoms et al.)

E. Nilsson

Received: 9 March 2012 / Accepted: 20 April 2012 / Published online: 27 April 2012

Commentary on the use of hernia registers for improving patient outcome

Hernia registers should be judged against their potential to influence audit, epidemiological research, and surgical training. In this era of cost constrain, prerequisites and costs for hernia registers should also be scrutinized.

Audit Local improvement work requires knowledge about patients treated; their characteristics including urgency of operation and postoperative course—recurrence or reoperation rate, pain and mobility. Officially produced statistics regarding hernia surgery are inadequate for quality control. Registers established and directed by hernia surgeons can provide each unit with its own outcome data and aggregated data for all register patients. During the initial phase of the Swedish hernia register, it was observed that reoperation for recurrence decreased significantly more in units aligned to the register than in units working outside the register [1].

Epidemiological research Systematic reviews of randomized controlled trials (RCT) have the highest level of evidence. However, RCT are expensive, time-consuming, and unsuitable for studying infrequent end points such as rare but serious adverse events after common surgical procedures. Studies based upon data from hernia registers have shown that patient characteristics, urgency of operation, surgical, and anesthesiological methods all affect outcome of hernia surgery [2]. Questionnaire studies have also provided valuable information on chronic pain after hernia operations [3]. The results reflect what can be obtained in routine settings, effectiveness, as distinct from results reached by experts under optimal circumstances, efficacy. As an alternative to RCT and register analyses, the use of large administrative databases may enable studies of comparative effectiveness of surgical techniques through detailed risk balancing [4]. However, these analyses are often limited to in-hospital procedures and patient satisfaction is difficult to account for.

Surgical training is of paramount importance in hernia treatment, and learning from the recent past through hernia registers may offer one road toward improvement and the aim of making each hernia operation "a once in a life-time experience". Contemporary reports indicate that some ten percent of hernia operations are done for recurrent hernias.

Prerequisites for a hernia register are commitment of participating units/surgeons, agreement on all variables and their definitions including end points and follow-up methods. Each unit must provide data for all hernia patients treated. Surgical techniques (including non-mesh repair for groin hernia and for ventral hernia [5, 6]) should be listed and type of prosthesis and method used for its fixation recorded. Informed consent of patients is essential and should be formalized. The responsibility of a register comprises data collection, running of statistics and epidemiological research, returning of stratified and time-specified data to each participant (own data and aggregated data for all patients). Data validity is fundamental, and register economy has to include expenses for an ongoing audit of incoming data.

Conclusion Hernia registers may improve surgery by giving individual units/surgeons easy access to their own outcomes and to best available treatment, which in turn will always be challenged by further studies.

E. Nilsson (✉)
Professor Emeritus of Surgery, Umea University, Umeå, Sweden
e-mail: erik.nilsson@surgery.umu.se

References

1. Nilsson E, Haapaniemi S (1998) Hernia registers and specialization. Surg Clin North Am 78(6):1141–1155
2. Kehlet H, Bay-Nielsen M (2008) Nationwide quality improvement of groin hernia repair from the Danish Hernia Database of 87,840 patients from 1998 to 2005. Hernia 12(1):1–7
3. Bay-Nielsen M, Nilsson E, Nordin P, Kehlet H (2004) Chronic pain after open mesh and sutured repair of indirect inguinal hernia in young males. Br J Surg 91(10):1372–1376
4. Hemmila MR, Birkmeyer NJ, Arbabi S, Osborne NH, Wahl WL, Dimick JB (2010) Introduction to propensity scores: a case study on the comparative effectiveness of laparoscopic vs open appendectomy. Arch Surg 145(10):939–945
5. Abrahamson J (2001) The shoelace repair. In: Bendavid R, Abrahamson J, Arregui M, Flament JB, Phillips EH (eds) Abdominal wall hernias principles and management. Springer, New York, pp 483–486
6. Ramirez OM, Ruas E, Dellon AL (1990) "Components separation" method for closure of abdominal-wall defects: an anatomic and clinical study. Plast Reconstr Surg 86(3):519–526