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EDITORIAL

A new important tool to report and analyse adverse incidents that all urologists should use

Editorial comment to: Nisen H, Erkkilä K, Ettala O, Ronkainen H, et al. Intraoperative complications in kidney tumor surgery: critical grading for the European Association of Urology intraoperative adverse incident classification. Scand J Urol. 2022 Aug 22:1–8

As urological surgeons, we have an obligation always to remember that the patient should be at the centre of our investigation, treatment and follow-up. We have many systems for preoperative monitoring of our patients, for instance the Charlson Comorbidity Index, ECOG and ASA; and after surgery, we often use the Clavien-Dindo Classification when reporting complications. Using these systems, we are able to monitor our patients and make audits when necessary, and we can use our results in studies and compare our results with others'.

Today, we do not routinely monitor or report intraoperative adverse events (IAE) or incidents (IAI) that arise from skin incision to skin closure, i.e. during our surgical interventions. We may therefore ask ourselves whether such IAEs or IAIs should be routinely reported to broaden current monitoring practices; and I argue that they are best described as IAIs as they happen during the operation. Peroperative complications are common and underreported, which is problematic. Moreover, it would be helpful to classify complications in a uniform and objective manner so that surgeons/urologists can easily compare outcomes and learn from complications.

In an article in this issue of the The Scand J urol, Nisen et al. address this issue by investigating the complication guidelines proposed by the European Association of Urology in 2019, named the EAU Intraoperative Adverse Incidents Classification (EAUiaiC) [1,2]. It is a novel classification system with which we monitor incidents that might occur during urological/surgical procedures.

I wish to congratulate Nisen et al. for their study where they report the validation of this new system for kidney tumour surgery (nephrectomy (RN) and partial nephrectomy (PN)) performed in Finland. The study group consisted of 1280 (749 patients who underwent nephrectomy (RN) and 531 partial nephrectomy (PN)). There was 110 IAEs in 103 patients (13.8%) undergoing RN, and 40 IAEs in 34 patients (6.4%) with PN. Bleeding was the most important IAE in kidney tumour surgery, so – therefore – 'code red'. However, they were also able to grade other incidents such as perforation, injuries of abdominal organs, with high accuracy and reliability. They found that the association between IAEs and preoperative variables and postoperative outcome indicated good validity for the EAUiaiC.

In the past, a few other classifications systems have been published, but no one has so far been implemented worldwide [3–6]. A simple system with which to evaluate intraoperative surgical errors in otolaryngology was published in 2002 [3] and extended in 2013 to a 3-grade classification of intraoperative incidents in surgery [4]. The Intraoperative Adverse Events Classification Scheme used in the Massachusetts General Hospital was reported in 2014 by Kaafarani et al. [5] and the most recent one, called Definition and Classification of Intraoperative Complications (CLASSIC), was published in 2015.

The EAUiaiC comprises eight AI (adverse incident) grades, ranging from grade 0 (no protocol deviation and no consequence to the patient) to grade 5B (wrong surgery site (A) or intraoperative death (B)). The grades total eight because there are two grades four (A and B) and two grades 5 (A and B). While designing the EAUiaiC, the panel used a modified Delphi process in which experts answered two rounds of survey questionnaires organised by the European Association of Urology *ad hoc* Complications Guidelines Panel. Experts evaluated the AI terminology using a 5-point Likert scale for clarity, exhaustiveness, hierarchical order, mutual exclusivity, clinical utility and quality improvement. They decided that intraoperative AIs should be graded according to their potential impact on patient outcomes. A total of 343 respondents participated. The panel found that at the validation stage, the EAUiaiC was rated highly favourably in terms of relevance and reliability (consistency) by 126 experts. Ratings for self-reported ease of use were at acceptable levels; thus, agreement among the experts was >90% for grades 2, 3, 4 and 5B; and >80% for grades 1 and 5A.

Recently, three studies registered their IAEs according to the EAUiaiC classification [7–9] although one study had only five patients. However, even small numbers make sense because one can compare a new technique with earlier reported ones [9].

However, the acronym (EAUiaiC) is a bit difficult, and I encourage the panel to change it slightly so that it becomes more colloquial and easier to remember, e.g. EAU-IC (EAU-intraoperative complications/classification) or EAU- IE (intraoperative incidents). This simplification would make it easier to use and remember. There is a major need for monitoring patients and reporting outcomes – also intraoperatively. I

therefore strongly support using the EAUiaiC, especially in RCT, so that we can obtain the best intraoperative information about what happens with our patients during surgery. It is essential to note complications in a uniform and objective manner so that surgeons can easily compare outcomes and, most of all, learn from any complications.

Every urologists should use the grading system after the operation using a specific grade number (0–5B). This will make it easier for the individual urologist and department to perform internal audits using their own results, but it will also be possible to compare one's own outcomes with those of other institutions.

Registration is important to research as it lays the foundation for new and better patient treatment, saves lives and puts the patient first. When performing registrations, the ambition must be to collaborate across subjects, universities, hospitals, sectors, regions and national borders to further excellent research that can contribute to the highest possible quality and coherence in treatment.

In conclusion, the EAUiaiC is a new classification that will (a) increase our ability to grade the quality of surgical procedures, (b) make it possible to compare outcomes between individual urologists/surgeons and/or institutions, (c) compare surgical techniques and (d) inform patients and relatives accurately about risks associated with specific procedures. Therefore, it is mandatory for urologists to take action and implement this new classification system.

Thus, authors, reviewers and editors, please do try to remember to incorporate this new classification system in the studies and review process, so as to make 'Code Red' (and the EAUiaiC) a requirement for publishing.

Disclosure statement

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