## **Guest editorial**

## How to play the final chess match—or at least lose with dignity

In this issue of *Acta Orthopaedica*, Wijnen et al. (2021) report that after nonoperative treatment of hip fractures nine-tenths died during the first month although one-third lived independently before their fracture. This may be startling, but we cannot evade the topic, as we are experiencing a rapid increase of very old citizens who bring their generation's way of thinking into the discussion of end-of-life care.

An old person, a physician, an acute fracture, and death: a serious plot, leading to very different stories in different countries. Sometimes, other actors set the scene: legislation, tradition, family members. The rate of nonoperative treatment of hip fracture varies from 1% to 25% (SFR 2019) (Amrayev et al. 2018, Tomioka et al. 2020), with lowest rates in northern Europe, where non-surgery is regarded as a feature from the past (Jensen and Tøndevold 1980), even if the pandemics have challenged this picture (Mi et al. 2020). Therefore, the increasing interest in the Netherlands in nonoperative treatment is conspicuous (van de Ree et al. 2017, Joosse et al. 2019, van der Zwaard et al. 2020).

How well does shared decision-making work in an acute setting? The elderly patient with a hip fracture is in an acute crisis, perhaps ready to choose death over the assumed consequences of a hip fracture (Salkeld et al. 2000). Being in pain in a stressful emergency room, she fears she will lose her independence. She might be so modest that she does not want to be a nuisance to the healthcare system or her family. Laypersons, i.e., family, will be more prone to see risks than benefit with acute surgery, wanting to spare their old family member such strain. Healthcare staff are supposed to respect competent patients' right to participate in decision-making regarding treatment that concerns the patient—the autonomy principle (Gillon 2003). When in medical need, the patient should be offered treatment, but also has a right to decline treatment. This negative right of a competent patient should be respected.

But a surgeon who considers surgery as a way to reduce pain and improve mobility during the remaining lifespan of the patient will find such a decline frustrating. To avoid decision-making based on prejudices regarding bad outcome, the physician has to listen carefully to the patient's ideas, worries, expectations, prejudices, and preferences—without interrupting or arguing with the patient. After summarizing and acknowledging the input from the patient—the first step in patient-centered care (Hedberg and Lynøe 2013)—the physician should inform the patient of what is correct and incorrect regarding factual



Death playing chess. Mural painting by Albertus Pictor around 1480, Täby Church, Sweden

aspects, avoiding tacitly impregnating her or his own values in this presentation (Lynøe et al. 2018). The physician must also ensure that the patient actually understood the information regarding the consequences of the treatment alternatives. If, after the patient-centered procedure, the patient still declines surgery we have to respect a competent patient's right to do so, when based on an informed and shared decision.

When interpreting scientific results, we have to bear in mind basic differences between countries and their healthcare systems. Wijnen et al. (2021) report an extremely high mortality after non-surgical treatment. Even if 29% of these Dutch patients lived independently before their hip fracture, 87% died during the first month. Previous reports describe a 1-month mortality of 19-36% after nonoperative treatment (Hossain et al. 2009, Loggers et al. 2020), but the case-mix differs. The underlying philosophy of the current study seems to be that suffering a hip fracture can be taken as a possibility to shorten the life of an individual who "has no wish to prolong life." In other countries, the endeavor is the contrary, for example as stated by Berry et al. (2018): "Surgical repair of a hip fracture was associated with lower mortality among nursing home residents with advanced dementia and should be considered together with the residents' goals of care in management decisions." It may be that our understanding of advance care planning differs more than we at first realize (van der Steen et al. 2016). Indeed, culture and legislation differ between counties, and the Netherlands has both leading research activity in advance care planning and a transparent practice of euthanasia (Onwuteaka-Philipsen et al. 2012, Rietjens et al. 2017).

In the future we will encounter more patients with hip fractures, most certainly individuals who will express other requests for their final stage of life, and not just suffer in silence. The orthopedic surgeon should prepare by understanding that the attitudes to advance care planning vary, that patients may prefer not to prolong life and ask for palliative care. Others may have an unrealistic view of what could be done to prolong life. Regardless of direction, applying a patient-centered approach, information procedure, and shared decision-making might decrease the orthopedic surgeon's frustration.

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- Amrayev S, AbuJazar U, Stucinskas J, Smailys A, Tarasevicius S. Outcomes and mortality after hip fractures treated in Kazakhstan. HIP Int 2018; 28(2): 205-9.
- Berry S D, Rothbaum R R, Kiel D P, Lee Y, Mitchell S L. Association of clinical outcomes with surgical repair of hip fracture vs nonsurgical management in nursing home residents with advanced dementia. JAMA Int Med 2018; 178(6): 774-80.

- Gillon R. Ethics needs principles—four can encompass the rest—and respect for autonomy should be "first among equals". J Med Ethics 2003; 29(5): 307-12.
- **Hedberg C, Lynøe N.** What is meant by patient-centredness being value-based? Scand J Prim Health Care 2013; 31(4): 188-9.
- Hossain M, Neelapala V, Andrew J. Results of non-operative treatment following hip fracture compared to surgical intervention. Injury 2009; 40(4): 418-21.
- Jensen J S, Tøndevold E. A prognostic evaluation of the hospital resources required for the treatment of hip fractures. Acta Orthop Scand 1980; 51(1-6): 515-22.
- Joosse P, Loggers S A, Van de Ree C M, Van Balen R, Steens J, Zuurmond R G, Gosens T, Van Helden S H, Polinder S, Willems H C. The value of non-operative versus operative treatment of frail institutionalized elderly patients with a proximal femoral fracture in the shade of life (FRAIL-HIP): protocol for a multicenter observational cohort study. BMC Geriatr 2019; 19(1): 1-12.
- Loggers S A, Van Lieshout E M, Joosse P, Verhofstad M H, Willems H C.
  Prognosis of nonoperative treatment in elderly patients with a hip fracture:
  a systematic review and meta-analysis. Injury 2020; 15(11): 2407-13.
- Lynøe N, Helgesson G, Juth N. Value-impregnated factual claims may undermine medical decision-making. Clinical Ethics 2018; 13(3): 151-8.
- Mi B, Chen L, Tong D, Panayi A C, Ji F, Guo J, Ou Z, Zhang Y, Xiong Y, Liu G. Delayed surgery versus nonoperative treatment for hip fractures in post-COVID-19 arena: a retrospective study of 145 patients. Acta Orthop 2020; 91(6): 639-643.
- Onwuteaka-Philipsen B D, Brinkman-Stoppelenburg A, Penning C, de Jong-Krul G J, van Delden J J, van der Heide A. Trends in end-of-life practices before and after the enactment of the euthanasia law in the Netherlands from 1990 to 2010: a repeated cross-sectional survey. Lancet 2012; 380(9845): 908-15.
- Rietjens J A, Sudore R L, Connolly M, van Delden J J, Drickamer M A, Droger M, van der Heide A, Heyland D K, Houttekier D, Janssen D J. Definition and recommendations for advance care planning: an international consensus supported by the European Association for Palliative Care. Lancet Onc 2017; 18(9): e543-e51.
- Salkeld G, Ameratunga S N, Cameron I, Cumming R, Easter S, Seymour J, Kurrle S, Quine S, Brown P M. Quality of life related to fear of falling and hip fracture in older women: a time trade off study commentary: older people's perspectives on life after hip fractures. BMJ 2000; 320(7231): 341-6.
- SFR. Swedish Fracture Register (www.frakturregistret.se). Annual Report 2019 (in Swedish). https://www.doi.org/10.18158/BkOFY5vhL
- Tomioka S, Rosenberg M, Fushimi K, Matsuda S. An analysis of equity in treatment of hip fractures for older patients with dementia in acute care hospitals: observational study using nationwide hospital claims data in Japan. BMC Health Serv Res 2020; 20(1): 1-12.
- van de Ree C L, De Jongh M A, Peeters C M, de Munter L, Roukema J A, Gosens T. Hip fractures in elderly people: surgery or no surgery? A systematic review and meta-analysis. Ger Orthop Surg Rehab 2017; 8(3): 173-80.
- van der Steen J T, Galway K, Carter G, Brazil K. Initiating advance care planning on end-of-life issues in dementia: ambiguity among UK and Dutch physicians. Arch Geront Ger 2016; 65:225-30.
- van der Zwaard B C, Stein C E, Bootsma J E, van Geffen H J, Douw C M, Keijsers C J. Fewer patients undergo surgery when adding a comprehensive geriatric assessment in older patients with a hip fracture. Arch Orthop Trauma Surg 2020; 140(4): 487-92.
- Wijnen H H, Schmitz P P, Es-Safraouy H, Roovers E A, Taekema D G, van Susante J L C. Nonoperative management of hip fractures in very frail elderly patients may lead to a predictable short survival as part of advance care planning. Acta Orthop 2021. Epub ahead of print. DOI: 10.1080/17453674.2021.1959155