Muscular and mental fatigue in surgeons

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COMMENT ON

Slack PS, Coulson CJ, Ma X *et al*. The effect of operating time on surgeons' muscular fatigue. *Ann R Coll Surg Engl* 2008; **90**: 651–657

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We read the article by Slack *et al* with great interest. This study provided experimental evidence for a linear relation between the extent of surgeons' muscular fatigue and operation length. This is an important message as muscle fatigue can potentially impact fine motor control in surgeons, thus affecting the outcome of the operation.

Besides muscular fatigue, we believe that mental fatigue (which is characterised by subjective feelings of 'tiredness' and 'lack of energy' induced by prolonged periods of demanding cognitive activity)¹ could also influence physical performance² and thus operation success.

For this reason, we recently asked 38 orthopaedic surgeons working in our institution (Schulthess Clinic, Zurich, Switzerland) to complete a survey on muscular and mental fatigue consecutive to an operation day. Muscular fatigue was classified as 'low to moderate' by 84% of the surgeons, mainly in back (53%) and lower extremity (29%) muscles. More importantly, mental fatigue was graded as 'moderate to high' by 85% of the surgeons and a similar percentage was observed after an ambulatory day. Again, this demonstrates the importance of minimising mental as well as muscular fatigue in an effort to improve surgeons' success (and patient care), both on operation days and between.

References

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2. Marcora SM, Staiano W, Manning V. Mental fatigue impairs physical performance in humans. *J Appl Physiol* 2009; **106**: 857–864.

Suspected testicular torsion

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COMMENT ON

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I was interested to read the article by Tydemann *et al* on suspected testicular torsion. I was confused, however, by the conclusion that general surgical trainees were less likely to discuss the management with the 'on-call consultant'. The questionnaire used by the investigators asked registrars if they would make the on-call 'urology' consultant aware. This distinction could have influenced the way in which trainees answered the question. Is it possible that general surgical trainees are discussing the management of these cases with general surgical consultant supervisors rather than urologists?

Staged bilateral knee replacements

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COMMENT ON

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It is a shame that Gabr *et al* did not include any reference to age or employment in their paper. Employment is surely one of the most important functional outcomes for many knee replacement patients and, as retirement ages rise, will become more so. Staged bilateral replacements might be thought to increase the duration of sickness absence from work and potentially push this to the point where patients end up on unpaid leave or even unemployed. However, if staging the procedure improves rehabilitation and reduces the proportion of working age patients who do not recover sufficiently to return to work, it might be advantageous economically. Clinical specialists should move towards considering return to an economically productive life as the desired end point to their interventions and therefore an important outcome to measure in studies of functional impact of surgery.