## Lefter to the Editor

## In response to "Cauda equina syndrome: evaluation of clinical outcome" More insights on sexual and defecational recovery in cauda equina syndrome

Dear Editor,

With interest we have read the case study of Tamburrelli et al<sup>1</sup> "Cauda equina syndrome (CES): evaluation of clinical outcome". As stated by the author, studies looking at recovery of sexual and bowel function are scarce and they add to our current knowledge revealing that recovery after decompression is limited and can take years.

In 2012, we published a systematic review on the exact same subject: long term recovery of micturition, defecation and sexual function after decompression of CES<sup>2</sup>. Fifteen studies with a total of 464 CES patients were included.

Compared to Tamburrelli, we found higher incidences of dysfunction: after 17 months, problems of micturition, defecation and sexual function were present in 43%, 50% and 44% of patients respectively. This might be because our results are based on patients' reported dysfunction instead of on objective measurements, with the exception of one of the included studies. We believe that patients' view on recovery is extremely important next to objective measurements, since, as we found in our review, objective findings do not always correlate with dysfunction in daily life.

Like Tamburrelli states, it is essential to make long follow up, since functions might regain slowly, as we demonstrated for micturition and sexual function.

Tamburrelli's patients did not report sexual dysfunction at presentation, but it would be interesting to know how many patients were asked *actively* about their sexual function pre-operatively. In our review, we found only 3 out of 464 patients had been asked about sexual function pre-operatively.

Tamburrelli states that literature is not strict on timing of decompression, which is supported by a recent review of Chau<sup>3</sup>. Indeed some studies did not find statistically significant differences in outcomes<sup>4,5</sup>, but especially since the meta-analysis of Ahn et al<sup>6</sup>, CES is regarded as an absolute indication for emergency decompression, and in order to obtain best recovery, decompression should be undertaken as soon as possible<sup>6-11</sup>.

## **Conflict of Interest**

The Authors declare that they have no conflict of interests.

## References

- 1) TAMBURRELLI FC, GENITIEMPO M, BOCHICCHIO M, DONISI L, RATTO C. Cauda equina syndrome: evaluation of the clinical outcome. Eur Rev Med Pharmacol Sci 2014; 18: 1098-1105.
- KORSE NS, JACOBS WCH, ELZEVIER HW, VLEGGEERT-LANKAMP CLAM. Complaints of micturition, defecation and sexual function in cauda equine syndrome due to lumbar disk herniation: a systematic review. Eur Spine J 2013; 22: 1019-1029.
- 3) CHAU AM, XU LL, PELZER NR, GRAGNANIELLO C. Timing of surgical intervention in cauda equina syndrome: a systematic critical review. World Neurosurg 2014; 81: 640-650.
- 4) OLIVERO WC, WANG HA, HANIGAN WC, HENDERSON JP, TRACY PT, ELWOOD PW, LISTER JR, LYLE L. Cauda equina syndrome (CES) from lumbar disk herniations. J Spinal Disord Tech 2009; 22: 202-206.
- QURESHI A, SELL P. Cauda equina syndrome treated by surgical decompression: the influence of timing on surgical outcome. Eur Spine J 2007; 16:1137-1154.

- 6) Ahn UM, Ahn NU, Buchowski JM, Garrett ES, Sieber AN, Kostulk JP. Cauda equina syndrome secondary to lumbar disk herniation a meta-analysis of surgical outcomes. Spine 2000; 25: 1515-1522.
- 7) BUSSE JW, BHANDARI M, SCHNITTKER JB, REDDY K, DUNLOP RB. Delayed presentation of cauda equina syndrome secondary to lumbar disk herniation: functional outcomes and health related quality of life. CJEM 2001; 3: 285-291.
- 8) DELONG WB, POLISSAR N, NERADILEK B. Timing of surgery in cauda equina syndrome with urinary retention: metaanalysis of observational studies. J Neurosurg Spine 2008; 8: 305-320.
- 9) DINNING TA, SCHAEFFER HR. Discogenic compression of the cauda equina: a surgical emergency. Aust N Z J Surg 1993; 63: 927-934.
- Shapiro S. Medical realities of cauda equina syndrome secondary to lumbar disk herniation. Spine (Phila Pa) 2000;
  348-351; discussion 352.
- Todd NV. Cauda equina syndrome: the timing of surgery probably does influence outcome. Br J Neurosurg 2005; 19: 301-306.

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