Spine alignment in adult trauma, degeneration and deformity

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Jean Dubousset argues that what is commonly called sagittal balance or sagittal imbalance should be rather called spinal alignment or malalignment. This, that appears just a matter of words, is indeed a concept that overwhelms our way of conceiving this topic. In fact, the common evaluation of the so-called “sagittal balance” is performed on a full X-ray of the spine including the pelvis and part of the femurs in frontal and lateral views. This is a static exam that gives an idea of the global alignment in a single moment. Moreover, main principles and rules regarding this topic are formulated on the thoracolumbar spine and pelvis, excluding or limiting the cervical spine and head position. It is obvious that the balance is a dynamic concept while the alignment is static and it is equally evident that the head and neck cannot be excluded from this type of evaluation.

Our common evaluation of the sagittal alignment finds balance-related aspects in compensation mechanisms; an active and dynamic way the spine has to re-balance the deformity. However, our diagnostic tools transform the compensation mechanisms in static events, limiting the comprehension of the whole problem.

This “Fifth Special Issue of the Società Italiana di Chirurgia Vertebrale SICV&GIS” has been entitled “Spine alignment in adult trauma, degeneration and deformity”. Sagittal alignment is now the most frequent topic in meetings, courses, papers and as pointed out by Robert Gunzburg in his *European Spine Journal* Editorial of 2014, Vol. 23, Issue 7, “everyone talks of it, refers to it, claims to understand and use”.

So why spend the whole Supplement on this topic? First of all, unlike in the past, following the suggestion of the Editor-in-Chief, we thought that it would be more appealing for the reader to spend the supplement on a single topic, rather than a miscellaneous issue that would represent a selection of the Annual National Conference of SICV&GIS. Decided that, since sagittal balance is a very attractive topic even in Italy, we decided to follow Jean Dubousset’s idea and incentive and dedicate this selection of papers from Italian authors on “Spine alignment in adult trauma, degeneration and deformity”.

Further on, the 2013 supplement had an enormous value for the Italian scientific production. The papers of the past GIS supplement represented about 40 % to the entire sci-

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Table 1 Number of Italian publications on spine topic and their impact factor (I.F.) in 2013

	Italian publications #	Impact factor	I.F. %
<i>Eur Spine J</i>	17	109.39	61.3
<i>Joint Bone Spine</i>	3		
<i>J Neurosurg: Spine</i>	1		
<i>J Neurosurgic Science</i>	2		
<i>Spine</i>	7		
<i>Spine J</i>	13		
Total	43		
<i>Eur Spine J</i> 2013 Italian Supplement	28	69.24	38.7

Source: web of science

entific production last year in Italy and more than one-third of the global impact factor of Italian publications on spinal journals (Table 1). That is why special issues of the Società Italiana di Chirurgia Vertebrale SICV&GIS represent a fundamental expression of Italian research and work in spinal field.

We hope (and we know) that the following pages will be plenty of interesting hints and results of Italian studies for the worldwide spinal community.

Conflict of interest None.