Duplicated pituitary gland associated with craniovertebral anomalies

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Statement of the Problem: Duplication of the pituitary gland is an extremely rare event. Hence, many details of this congenital disorder are still not known.

Methodology & Theoretical Orientation: Biochemical analysis and radiologic examination (MRI and MSCT) were performed in our patients.

Findings: A 21-year-old male patient presented with a moderate hypogonadism, obesity and limited neck rotation. Biochemical analysis showed a lower blood level of testosterone. The MRI examination revealed pituitary duplication, enlargement of the median eminence, its fusion with the mammillary bodies, and a hamartoma of the hypothalamus. The Multislice CT examination showed many craniovertebral malformations: duplication of the hypophyseal fossa, bilateral duplication of the posterior clinoid processes, expressed relief of cranial tabula interna, and a very broad clivus; an inverse foramen magnum with the third occipital condyle; a median agenesis of the anterior and posterior atlas arches; duplication of the odontoid process, and a median cleft of the axis body; a fusion of the C2-C4 vertebrae; and, hypoplasia of the vertebral arteries, early bifurcation of the basilar artery, hypoplasia of the P1 segment of the posterior cerebral artery, and segmental dilatation of the A2 part of the anterior cerebral artery.

Conclusions & Significance: Pituitary duplication associated with such a combination of the craniovertebral malformations has never been reported.

Biography
Slobodan Marinković has completed his PhD at the age of 31 years from Belgrade University and postdoctoral studies from Laboratory of Neurophysiology, Panum Institute in Copenhagen (Denmark). He spent 3 months at George Town University, Washington D.C., USA. He has published 2 international books, four chapters in 2 other books, 8 national books, more than 60 papers in reputed journals and has been serving as an editorial board member of repute. He has about 1200 citations in the international publications. He has given 16 lectures at various international congresses and universities as an invited speaker and has been a chairman person on three occasions. He is a Full Professor of Anatomy at University of Belgrade, and a Visiting Professor at Shinshu University, Matsumoto, Japan.

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