Cesarean Section in Parturient with Klippel Feil Syndrome- A Case Report

Borislava Pujic, MD, Phd[1], Branislav Macut, MD[1],Noemi Holo- Djilvesi, MD[1,] Djula Djilvesi, MD, PhD[2,3], Slavica Krusic[4], MD Craig Palmer, MD[5]

[1]CCV, Clinic of Anesthesia, Intensive Care and Pain Therapy. Obstetric and Gynecology Hospital, Department of Anesthesia, Novi Sad, Serbia
[2]UCCV, Clinic for Neurosurgery, Novi Sad, Serbia
[3]Facylty of Medicine, University of Novi Sad, Serbia
[24]Gynecology and Obstetrics Hospital Narodni Front, Belgrade, Serbia
[5]University of Arizona, Tucson, AZ, USA

Background:

- Klippel-Feil (K-F) syndrome is an infrequent genetic medical condition (affecting about 1 in 40,000 live births), which presents with the fusion of two or more bones in the cervical spine, an asymmetric face, short neck, and very minimal neck mobility.

- This is the first case to present to our hospital.

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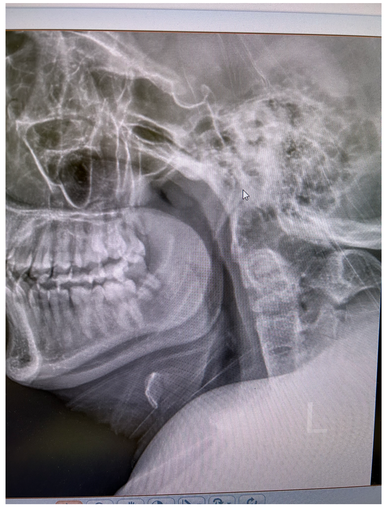
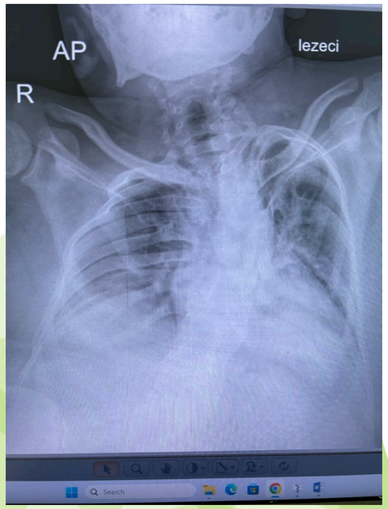
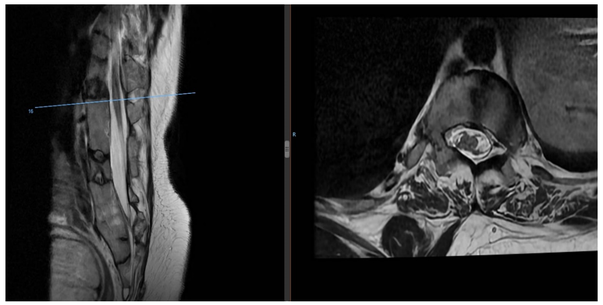
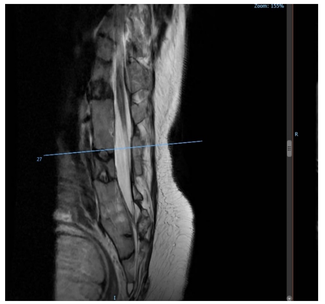
Case presentation:

- We present a case of a 21-year-old G1P0 parturient, Roma ethnicity, with type II K-F syndrome transferred from a regional hospital at 36 weeks of gestation for an elective CS
- She had severe scoliosis of thoracic vertebrae, with a short neck, and Sprengel deformity of one scapula (preoperative chest X-ray and an MRI of her spine- was indeterminate)
- Consultations with: cardiologists (ECG, US), pulmonologists, neurologists
- Height 118cm, weight 66kg
- CS was performed under GA with rocuronium (refused RA)- video laryngoscope, bougie
- Ventilation proved difficult (SpO2 was 80%, and EtCO2 was 50-60 mmHg), leading to manual ventilation. For NM reversion used Sugammadex.
- A healthy baby girl, weighing 2400g and measuring 47cm, was born with Apgar scores of 9/10 in the first and fifth minutes. The postoperative course was uneventful, and the patient was discharged home on POD3.

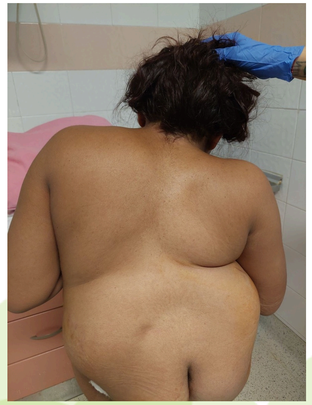








- ***Discussion:*** Type II K-F is considered to be the most common form. Both GA and RA can be used for OB anesthesia. In the literature are mostly case reports. If GA, it is recommended to have fiberoptic awake intubation. If RA, it is recommended that the US use it for spinal or epidural space assessment.
- ***Conclusion:*** Patients with Klippel-Feil syndrome present specific anatomic challenges for the anesthesiologist. Both RA and GA may pose significant risks to the patient. This case carried a high level of risk but concluded successfully due to multidisciplinary collaboration.



- ***Lit:*** 1. Thomsen M.N.,Schneider U. Weber M., Johannisson R., Niethard F.U. Scoliosis and congenital anomalies associated with Klippel-Feil syndrome types I–III. *Spine.* 1997; 22: 396-401
- 2. Sirico A, et al. Airway management with McGrath Series 5 video laryngoscope in a woman with Klippel-Feil syndrome requiring urgent cesarean section. IJOA 2015; 24:286-288.