52. **LUDWIG'S ANGINA, CLINICAL CHALLENGE IN PEDIATRICS. – A CASE REPORT**

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BACKGROUND: Ludwig's angina is a rapidly progressing cellulitis that occurs in the sublingual, submandibular, and submental spaces, with a high mortality rate due to its potential to obstruct the airway. Its primary cause is odontogenic, with polymicrobial infection being the most common scenario. The occurrence of this condition is less common in the pediatric population, but children are more susceptible to life-threatening complications. **THE CASE**: A two-year-old male preschooler, with no significant medical history, presented with a clinical picture evolving over six days. This was characterized by recurrent fever spikes (up to a maximum of 38.7 degrees Celsius) and a growing, stony, painful mass in the right cervical region measuring 5cm x 5cm. The patient had not shown improvement despite self-medication with amoxicillin at home. Upon admission to a regional hospital, a fixed, painful, stony mass was found in the right submandibular region. Blood tests revealed leukocytosis with a left shift, positive acute-phase reactants, and a neck ultrasound indicating upper cervical adenitis without abscess formation. Antibiotic treatment was initiated for six days. However, the fever persisted, and there was an increase in the size of the lesion, along with the formation of an abscess and limited neck rotation. Consequently, on the 12th day of illness, the patient was referred to a tertiary-level hospital where a large, fixed, stony lesion was observed in neck regions II and III, with no exclusion of a neoplastic process. The patient also experienced difficulty swallowing, necessitating a liquid diet. It was decided to perform drainage under sedation and a biopsy, which revealed a stony mass in the right neck region II extending into the submental space and midline. There were severe inflammatory changes in the subcutaneous tissue, necrotic lymph nodes, but no abscess was found. Pathological examination showed inflammatory infiltrate, recent hemorrhage and vascular congestion, with the initial suspicion being an infectious process. Flow cytometry of the cervical lymph node showed no alterations in the lymphoid series but an elevation of neutrophils. However, due to the characteristics and location of the lesion, a consultation with pediatric hematologic-oncology was sought, and they considered a low likelihood of malignancy. A tuberculin test was requested and returned negative results. A culture of the lesion also yielded negative results. During hospitalization, the condition was considered Ludwig's angina, and the patient continued to show a progressive reduction in temperature and adenitis. On the 21st day, the patient exhibited a reduction of approximately 90% in the size of the lesion, leading to the discontinuation of antibiotic treatment and subsequent medical discharge. **CONCLUSION**: Ludwig's angina is an infection that primarily affects the floor of the mouth, progressing rapidly and potentially compromising the patient's airways, thus warranting a medical emergency status. It is uncommon and can be mistaken for neoplastic diseases or other infections, highlighting the need for knowledge about this condition and a high degree of suspicion due to its potentially life-threatening consequences. The goal is to establish appropriate management through a multidisciplinary team, given the complexity of its manifestations.

Table. Attitude of Respondents regarding Antibiotic Use.

Laboratory test	Hospitalization days	Pacient	Reference range
C-reactive protein	Day 1	99.80 mg/l	0-5 mg/l
Lactate dehydrogenase (LDH)	Day 1	248.00 UI/L	
Sodium	Day 1	138.00 mmol/L	135-148 mmol/L
Potassium	Day 1	4.57mmol/L	3,5-4,5 mmol/L
Ultrasound of the neck	Day 3	Abscessed adenitis, in the right submandibular region, a hypoechoic image with irregular margins partially measurable by its morphology, however with approximate diameters of 35 x 14 x 32 mm with an approximate volume of 8 cc associated with a diffuse increase in the echogenicity of the adjacent soft tissues. Conclusion: Lesion towards the right submandibular region associated with inflammatory changes in the adjacent soft tissues may be related to adenitis with partially abscess.	
Drainage Culture	Day 4	Negative	
Flow Cytometry	Day 5	Lymph node: lymphoid cell line without alteration. High representation of neutrophils. The findings were correlated with soft tissue infectious process involving lymphoid nodal tissue.	
Purified protein derivative standard; TB skin test (PPD)	Day 7	Negative	
Lymphocytes	Day 9	54.2%	25-50 %
Absolute Lymphocyte Count	Day 9	6.04 ml/mm3	
Hemoglobin	Day 9	12.2 g/dl	13-18 g/dl
Hematocrit	Day 9	36.4%	42-52 %
Platelets	Day 9	493x 10^3/ul	150-450 x10^3/ul

Key words: Ludwig's Angina; Lymphadenopathy; Pediatrics (Source: MeSH-NLM).