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ePoster Viewing

Fungal disease epidemiology & clinical trials

Cervicofacial actinomycosis in Saint Petersburg, Russia

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Background: To study risk factors, clinical features, and treatment efficiency of cervicofacial actinomycosis in Saint Petersburg, Russia.

Material/methods: Prospective (2005 – 2014 yy.), single-center study of 162 patients with different clinical forms of actinomycosis. Cervicofacial actinomycosis made 40% (n=65) of all cases. Men were 58%, median age – 47 ± 3 y (25 – 74). The diagnosis was based on histological and/or microbiological examination. The control group composed 63 patients with nonspecific inflammatory processes of cervicofacial region.

Results: Main predisposing factors were maxillofacial trauma - 38% (OR=5.938 [2.2-15.8]). All patients were immunocompetent.

Sites of infection: mandible - 49%, maxilla - 18%, subcutaneous tissues - 48%, pharyngeal tonsils - 6%, paranasal sinuses 5%, tongue - 5%. Osteomyelitis was in 53% patients ($p < 0.05$).

Median duration of the disease before diagnosis was 6 ± 2 months (2 – 24). Signs and symptoms were non-specific: progressive swelling of soft tissues (66%), erythema (52%), pain with tension around the mass (58%), low grade fever (29%), and lymphadenopathy (16%). Draining sinuses were observed in 63% cases.

In 76% cases diagnosis was based on histology of operational material or biopsy. The etiology agents were *A. israelii* – 46%, *A. odontolyticus* – 31%, *A. naeslundii* – 11%, *A. viscosus* – 6%, *A. bovis* – 3%, and *A. meyeri* – 1%.

All patients were treated with of iv penicillin (12-24 million units per day) for 2 weeks, followed by oral amoxicillin 1,5-2 g/day. The median duration of antibiotic treatment of patients with osteomyelitis was 8 ± 6 months, patients without osteomyelitis - $3,5 \pm 3$ months. Surgery was used in 32% patients. Efficiency of treatment was 97%.

Conclusions: Cervicofacial actinomycosis made 40% of all cases of the disease. Trauma (OR=5.938[2.2-15.8]) was most common predisposing factor. *Actinomyces israeli* was main pathogen. Long-term antibiotic therapy plus surgery were effective in 97% patients.