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ANALYSIS OF CLINICAL SIGNS AND EPIDEMIOLOGICAL FEATURES IN PATIENTS WITH EPIDEMIC PAROTITIS

Yusupov Shavkat Raximbayevich, Ibraximova Hamida Rustamovna,

Sadullayev Siroj Ernazarovich

Urganch State Medical Institute, Urgench, Uzbekistan

E-mail: sadullayev.siroje@gmail.com

ORCID: https://orcid.org/0009-0006-4052-7183

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Abstract This study examined the clinical course and epidemiological characteristics of 42 patients diagnosed with epidemic parotitis (mumps). The analysis showed that the disease primarily affected school-aged children, with the main clinical sign being swelling of the parotid glands accompanied by intoxication symptoms. The obtained data are important for early diagnosis and strengthening epidemiological surveillance.

Keywords: Epidemic parotitis, clinical course, epidemiology, viral infection, children.

Introduction. Epidemic parotitis is an acute viral infectious disease, mainly characterized by inflammation of the salivary glands. The causative agent is the Mumps virus, belonging to the Rubulavirus genus. The infection is primarily transmitted via the airborne-droplet route and can spread rapidly in organized groups of children. In recent years, decreased vaccination coverage in certain regions has contributed to increased incidence of the disease. Therefore, analyzing the clinical and epidemiological features of epidemic parotitis remains highly relevant.

Materials and Methods

A retrospective analysis was conducted using medical records of 42 patients treated in a hospital setting. The following parameters were examined:

- Age and sex distribution
- Onset and duration of the disease
- Main clinical symptoms
- Epidemiological history (contact exposure, attendance in organized groups, vaccination status)

Diagnosis was established based on clinical signs and laboratory tests.

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Results

Age Distribution

Analysis revealed that the disease predominantly affected children aged 7–14 years, who accounted for the majority of patients. This may be explained by higher social activity and prolonged exposure in school environments.

Sex Distribution

Boys were slightly more affected than girls, although this difference was not statistically significant. Nevertheless, it was noted as an epidemiologically relevant trend.

Clinical Features

All patients exhibited swelling of the parotid glands, which was the primary and most prominent clinical sign. In most cases, the swelling was bilateral, firm, and tender on palpation. Some patients initially had unilateral swelling that progressed to the opposite side within 1–2 days.
Other observed symptoms included:

- Fever of 38–39°C
- General weakness and decreased appetite
- Headache
- Pain while chewing and speaking
- Dry mouth and discomfort

The disease typically had an acute onset with a short prodromal period. Intoxication signs were most pronounced during the first 2–3 days and gradually subsided.
Clinical monitoring indicated that the majority of cases were mild to moderate in severity. The average hospital stay ranged from 6 to 8 days.

Epidemiological Features

Epidemiological analysis revealed that most patients attended schools or preschools. Close contacts within organized groups played a key role in the spread of infection.
In many cases, the source of infection was identified prior to disease onset. Some infections occurred within families or among classmates.
Vaccination history analysis showed that some patients were incompletely vaccinated, had not received revaccination, or had unclear vaccination records. The main preventive measure against epidemic parotitis is the MMR vaccine. Insufficient vaccination coverage increases the risk of disease spread.

Discussion

The findings confirm that epidemic parotitis predominantly affects school-aged children. High infection rates in this group are likely related to prolonged time spent in close-contact settings and incomplete adherence to hygiene rules. Most cases presented with typical clinical signs, and parotid gland swelling served as a primary diagnostic criterion. The presence of intoxication symptoms reflects the acute viral nature of the disease. From an epidemiological perspective, the high proportion of contact cases underscores the efficiency of airborne-droplet

transmission. Early isolation measures and preventive interventions in organized groups are therefore essential. Increasing vaccination coverage, particularly timely revaccination, remains a crucial factor in disease prevention. Vaccination not only reduces incidence but also helps interrupt epidemic chains.

Conclusion. Epidemic parotitis primarily affected children aged 7–14 years, with a higher incidence among school-aged groups.The main clinical sign was parotid gland swelling, which was bilateral in most cases.Intoxication symptoms were prominent during the initial stage of the disease.High contact rates in organized child groups played a significant role in disease transmission.Vaccination is the most effective preventive measure; expanding coverage contributes to reducing disease incidence.

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