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FOREIGN BODIES OF THE EAR, NOSE, AND THROAT IN CHILDREN: A RETROSPECTIVE ANALYSIS OF LOCALIZATION, TYPES, AND AGE DISTRIBUTION

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Foreign bodies of the ear, nose, and throat (ENT) remain among the most frequent reasons for emergency otorhinolaryngological consultations in pediatric practice [1, 2]. The natural curiosity of young children, their instinct to explore the surrounding environment, and inadequate adult supervision frequently contribute to the insertion or aspiration of various objects into the nasal cavity, external auditory canal, and upper airways. Delayed diagnosis and removal of these items can lead to severe inflammatory reactions and other life-threatening complications [3, 4].

Aim of the study

This study aimed to analyze the anatomical localization, types, and age-related distribution of ENT foreign bodies in children who required specialized medical care.

Materials and Methods

A retrospective analysis of medical records was conducted for children admitted to the emergency departments of the private clinic "Xayat Medical" and the Clinic of Tashkent State Medical University between January 2024 and May 2026.A total of 101 cases of ENT foreign body removal were registered in children aged 12 months to 15 years. The study cohort included 58 boys (57.4%) and 43 girls (42.6%), with a mean age of approximately 3.4 years. The collected data encompassed patients' demographics (age and sex), anatomical localization of the foreign body, and its specific type. Statistical analysis was performed using descriptive statistics.

Results

Age Characteristics of Patients

Age-specific analysis demonstrated that ENT foreign bodies were most frequently detected in children younger than 7 years. This age cohort accounted for 57.4% of all observations (n = 58), highlighting a high prevalence of this condition among infants, toddlers, and preschool-aged children.

Distribution of Patients According to Foreign Body Localization

The most common anatomical site for foreign objects was the nasal cavity, identified in 71 cases (70.3%). Foreign bodies of the external auditory canal were detected in 21 children (20.8%), while laryngeal lesions were registered in 9 patients (8.9%).

Distribution According to the Type of Foreign Body

Analysis of the retrieved items revealed that paper (18.8%), plastic objects (16.8%), and metallic items (13.9%) were the most prevalent. Less frequently encountered foreign bodies included synthetic sponges, chalk, modeling clay, fish bones, and chewing gum.

Discussion

The findings of this study demonstrate that nasal foreign bodies represent the most frequent pathology among children requiring emergency ENT care. This high incidence is primarily attributable to the anatomical and physiological characteristics of early childhood, combined with a natural propensity of

young children to insert small items into the nasal passages.

The observed predominance of boys in our cohort aligns with the consensus in global literature on pediatric ENT trauma. The peak incidence recorded in children under 7 years of age is strongly associated with age-specific behavioral patterns and a lack of cognitive awareness regarding the potential hazards of small objects.

Table 1

Anatomical distribution of ENT foreign bodies in the study cohort

Anatomical localization	**Number of cases (*n*)**	**Percentage (%)**
Nasal cavity	71	70.3
External auditory canal	21	20.8
Larynx	9	8.9
Total	**101**	**100.0**

Table 2

Distribution of retrieved ENT foreign bodies by material and object type

Type of foreign body	**Number of cases (*n*)**	**Percentage (%)**
Paper	19	18.8
Plastic objects	17	16.8
Metallic items	14	13.9
Vegetable seeds and pits	11	10.9
Beads	10	9.9
Stones	8	7.9
Synthetic sponges	6	5.9
Chalk	6	5.9
Modeling clay (plasticine)	4	4.0
Fish bones	3	3.0
Chewing gum	3	3.0
Total	**101**	**100.0**

A substantial proportion of the retrieved items consisted of common household materials – specifically paper, plastic, and metallic objects. This distribution underscores the critical need for enhanced preventive strategies and safety education targeted at parents, caregivers, and preschool educators.

Conclusion

1. Between January 2024 and May 2026, a total of 101 cases of ENT foreign body removal in children were registered. The study cohort demonstrated a clear gender imbalance, with a predominant proportion of male patients (57.4% of boys vs. 42.6% of girls).

2. The critical risk group for ENT foreign body insertion encompasses infants, toddlers, and preschool-aged children. The peak incidence was recorded among patients younger than 7 years, accounting for 57.4% (n = 58) of all clinical observations.

3. Anatomically, the nasal cavity represented the most frequent site of foreign object localization, identified in 70.3% of cases, followed by the external auditory canal (20.8%) and the larynx (8.9%).

4. In terms of material type, common household items were the most prevalent, dominated by paper products (18.8%), plastic objects (16.8%), and metallic items (13.9%). This distribution highlights the urgent need for targeted public health initiatives and enhanced safety education for parents and preschool caregivers.

Conflict of interest

The authors declare no conflict of interest.

Use of Generative Artificial Intelligence

The authors of the manuscript hereby certify that all stages of the work from conceptualization to final editing were performed solely by the authors without the involvement of generative artificial intelligence.

Data availability statement

The authors of the manuscript hereby confirm that the study is based on their own clinical research, the results of which were systematized and analyzed by the authors. The primary data include aggregated patient indicators, protocols, and examination findings. All materials are stored in the archive of the research group and may be provided upon a justified request to the corresponding author, in accordance with confidentiality requirements and ethical standards.

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A b s t r a c t

Objective. To evaluate the anatomical localization, material types, and age-related distribution of ear, nose, and throat (ENT) foreign bodies in children requiring specialized medical care.

Materials and Methods. A retrospective analysis was conducted on 101 cases of ENT foreign body removal in pediatric patients admitted to the emergency departments of the private clinic "Xayat Medical" and the Clinic of Tashkent State Medical University between January 2024 and May 2026. Data on patients' demographics, anatomical site, and type of foreign object were systematized and analyzed using descriptive statistics.

Results. The patients' ages ranged from 12 months to 15 years, with a mean age of approximately 3.4 years. The study cohort included 58 boys (57.4%) and 43 girls (42.6%). ENT foreign bodies were most frequently detected in children younger than 7 years, accounting for 57.4% (n = 58) of all observations. The nasal cavity represented the predominant site of localization, identified in 71 cases (70.3%), followed by the external auditory canal in 21 children (20.8%) and the larynx in 9 patients (8.9%). Regarding material types, the most prevalent retrieved items were paper (18.8%), plastic objects (16.8%), and metallic items (13.9%).

Conclusion. ENT foreign objects are most commonly encountered in infants, toddlers, and preschool-aged children under the age of 7, with a higher prevalence among boys. The nasal cavity remains the primary anatomical site of insertion, while common household items and small toys constitute the majority of retrieved objects, emphasizing the need for enhanced parental supervision and targeted preventive education.

Keywords: pediatric patients, ENT foreign bodies, nasal cavity, external auditory canal, larynx, emergency otorhinolaryngology.

СТОРОННІ ТІЛА ВУХА, НОСА ТА ГОРЛА У ДІТЕЙ: РЕТРОСПЕКТИВНИЙ АНАЛІЗ ЛОКАЛІЗАЦІЇ, ТИПІВ ТА ВІКОВОГО РОЗПОДІЛУ

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А н о т а ц і я

Мета дослідження. Оцінити анатомічну локалізацію, типи матеріалів та віковий розподіл сторонніх тіл вуха, носа та горла (ЛОР-органів) у дітей, які потребували спеціалізованої медичної допомоги.

Матеріали та методи. Проведено ретроспективний аналіз 101 випадку вилучення сторонніх тіл ЛОР-органів у пацієнтів педіатричного профілю, які були госпіталізовані до приймальних відділень приватної клініки «Xayat Medical» та Клініки Ташкентського державного медичного університету в період між січнем 2024 року та травнем 2026 року. Дані щодо демографічних характеристик пацієнтів, анатомічних зон та типів сторонніх предметів були систематизовані та проаналізовані за допомогою методів описової статистики.

Результати. Вік пацієнтів варіював від 12 місяців до 15 років, а середній вік становив близько 3,4 року. Досліджувана когорта включала 58 хлопчиків (57,4%) та 43 дівчинки (42,6%). Сторонні тіла ЛОР-органів найчастіше виявляли у дітей віком до 7 років, що становило 57,4% (n = 58) від усіх клінічних спостережень. Домінуючою анатомічною локалізацією виявилася порожнина носа – 71 випадок (70,3%), на другому місці за частотою був зовнішній слуховий хід – 21 дитина (20,8%), а ураження гортані зафіксовано у 9 пацієнтів (8,9%). За типом матеріалу серед вилучених предметів переважали папір (18,8%), пластикові об'єкти (16,8%) та металеві вироби (13,9%).

Висновки. Сторонні предмети ЛОР-органів найчастіше зустрічаються у немовлят, дітей раннього та дошкільного віку (до 7 років), із вищою поширеністю серед хлопчиків. Порожнина носа залишається первинною анатомічною зоною введення сторонніх тіл, тоді як звичайні побутові предмети та дрібні іграшки становлять більшість вилучених об'єктів. Це підкреслює нагальну потребу в посиленні батьківського контролю та проведенні цільового профілактичного навчання для вихователів.

Ключові слова: педіатричні пацієнти, сторонні тіла ЛОР-органів, порожнина носа, зовнішній слуховий хід, гортань, невідкладна оториноларингологія.