

DYNAMIC ASSESSMENT OF THE FUNCTIONS OF MUCOCILIARY CLEARANCE IN PATIENTS WITH AN INTUBATION TUBE AND NASGASTRAL PROBE

Safoev Mukhammadorif Rakhimjon ugli.

Master of the third year of the Department of Pediatric Otorhinolaryngology and Dentistry of the Tashkent Pediatric Institute

Email: Safojev1991@mail.ru

Tel: +99899 807 34 31

Dr. med. Ashurov Azimzhan Mirzazhanovich

Associate Professor of the Department of Otorhinolaryngology TashIUV

Email: azim_1960@mail.ru

Tel: +99891 166 66 96.

Abdullaev Khabibulla Nasratullaevich

Assistant of the Department of Otorhinolaryngology, Pediatric Otorhinolaryngology and Dentistry TashPMI

Email: abdulhabib@mail.ru

Tel: +99890 175 91 10

Abstract: The functional state of the nasal mucosa in patients was assessed by the time of MTS using visual (methylene blue) indicators according to the method of S.Z. Piskunov et al. 75 patients with various pathologies and brain injuries in serious condition were examined. The patients were divided into groups: 1st group is patients with severe TBI; 2nd patients with TBI and nasogastric tube (NGZ); 3rd patients with severe TBI and nasotracheal intubation (NTI); and the 4th group with TBI and orotracheal intubation (OTI) and the control group, these are patients in the intensive care unit without TBI. We found that when NTI and NGZ are in the nasal cavity for more than 4-5 days, there is a risk of nosocomial sinusitis. This alarms us to take preventive measures to prevent nosocomial sinusitis from the first day after hospitalization of the patient.

Key words: mucociliary clearance, endotracheal tube, nasogastric tube, sinusitis, nasal cavity.

INTRODUCTION

Intubation and probing of the upper respiratory tract is an essential attribute of comatose, critically ill patients and patients with traumatic brain injury (TBI). Sometimes, these patients are under artificial lung ventilation (ALV) for a long time with a nasotracheal (NTI) or orotracheal endotracheal tube (OTI), a nasogastric tube (NGZ).

The condition of the paranasal sinuses (SNP) in patients with concomitant injury of the bones of the facial skeleton (STKLS) who are under mechanical ventilation for a long time has not been sufficiently studied in the literature available to us.

Acute sinusitis, which occurs in patients with a severe condition without damage to the SNP, refers to nosocomial (nosocomial) pathology. This condition can develop with prolonged presence of the endotracheal tube, NGZ in the nasal cavity. Being a foreign body, the latter disrupt the normal functioning of the

ciliated epithelium of the nasal cavity, irritate the mucous membrane, and lead to edema, squeezing blood vessels, impairing blood circulation, etc.

A steady trend towards an increase in nosocomial sinusitis, especially in patients with STKLS, determines the relevance and development of methods for predicting, preventing and treating these diseases. Despite the presence of a large number of treatment methods in the doctor's arsenal, the results are not always satisfactory.

SNPs were previously considered sterile, but microflora that grows in the upper respiratory tract is often found. There is evidence that gram-negative bacteria can be found in material from ENT - organs of weakened people who do not suffer from purulent-septic infections.

The purpose of this study: To assess the functional state of mucociliary clearance (MTS) in seriously ill patients with STI, OTI and NGZ. Material and methods. Examined 75 patients with various pathologies and brain injuries in serious condition, in the intensive care unit of the 1-city clinical hospital in Tashkent. The age of the patients is from 25 to 70. Of these, 55 are men, 20 are women.

The functional state of the nasal mucosa in patients was assessed by the time of MTS using visual (methylene blue) indicators according to the method of S.Z. Piskunov et al. [4]. The survey was carried out on the 1st-2nd day, 4-5th day and 7-8th day. The patients were divided into groups: 1st group is 15 patients with severe TBI; 2nd patients with TBI and nasogastric tube (NGZ) 15 people; 3rd patients with severe TBI and nasotracheal intubation (NTI) 15 people; and the 4th group with TBI and orotracheal intubation (OTI) 20 people and the control group 10 people, these are patients in the intensive care unit without TBI.

The research results are presented in the table

Dynamics of the MTS function (in minutes) in patients under mechanical ventilation and nasogastric tube

Examination terms	Survey groups				
	Control	Heavy TBI	TBI+NGZ	TBI+NTI	TBI+OTI
	N=10	N=15	N=15	N=15	N=20
1-2 day	8,60+ _{0,38}	8,85+ _{C,37}	9,05+ _{C,32}	9,38+ _{0,35}	8,90+ _{0,30}
		P>0,15	P1>0,05	P2<0,05	P3=0,025
4-5 th day	8,60+ _{0,38}	9,40+ _{C,37}	9,61+ _{C,34}	10,27+ _{0,38}	9,54+ _{0,35}
		P<0,01	p>0,05	P2<0,01	P3<0,01
7-8 th day	8,60+ _{0,28}	13,6+ _{C,47}	14,5+ _{C,38}	17,35+ _{0,57}	16,45+ _{0,39}
		p<0,001	P1<0,025	P2<0,001	P3>0,05

p - the degree of reliability of the differences in the mean indicators of the MTS function in the groups of severe TBI and control; P1 - in the groups of severe TBI + NHZ and severe TBI; P2 - in the groups of severe TBI + STI and severe TBI; P3 - in the groups of severe TBI + ATI and severe TBI + STI.

Discussion.

Assessment of the functional state of the nasal mucosa in patients with TBI revealed a significant in comparison with control (p <0.05) maximum inhibition of the mucociliary clearance activity already on days 4-5 after intubation or intubation. Various invasive manipulations had a significant effect on it, primarily STI, which significantly inhibited the MTS function, starting from the first day (P <0.05).

Conclusion.

Thus, when STI and NGZ are in the nasal cavity for more than 4-5 days, there is a risk of nosocomial sinusitis. This alarms us to take preventive measures to prevent nosocomial sinusitis from the first day after hospitalization of the patient.

REFERENCE:

1. Zakarov A. M. Relief of secondary factors of tissue damage by perftoran in early rehabilitation therapy of severe concomitant traumatic brain injury. / dis. ... Cand. honey. sciences. - 2007.
2. Zamerova LN et al. Assessment of the severity of the condition of patients with concomitant injury using the SAPS II integral scale // Abstracts of the II Congress of the Association of Anesthesiologists and Resuscitators of the Central Federal District. - M., 2005.-- 30C
3. Semenov A. B. On the organization of medical care for patients with severe concomitant traumatic brain injury // Combined traumatic brain injury. - Omsk, 2005.-- S. 42-46.
4. Piskunov S.Z: Investigation of the mucociliary transport system of the nasal mucosa in healthy individuals. // Russian rhinology.-1995.-№3-4.-pp. 60-62.
5. Sousova E.V. Epidemiology of purulent-septic infections of ENT- organs in the conditions of outpatient clinics / Dis. ... Cand. honey. sciences. 14.00.04.-SP6., 1997.-150s.