

THE STRUCTURE OF INTERNAL NASAL VALVE BY USING ENDOSCOPY

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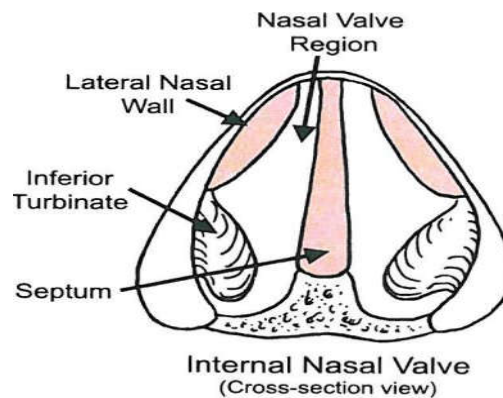
ABSTRACT

Objective: Investigating the structural formations of internal nasal valve by using nasal endoscopy. **Method of study:** A cross-sectional-description study was conducted on one hundred and thirty nine students of the University of Medicine and pharmacy without the complaint of chronic nasal obstruction. They were examined the internal nasal areas by using endoscopy two times: before spraying decongestant and after 15-30 minutes spraying decongestant into the nasal cavity to identify the types of internal nasal valve according to Miman's classification. The study was done at Can Tho University Hospital. **Results and discussion:** Sharp angle type accounted for 32.01%, blunt angle type accounted for 12.23%, convex caudal border type accounted for 5.04%, concave caudal border type accounted for 5.04%, angle occupied by the septal body accounted for 34.17% and twisted caudal border type accounted for 11.51% in our study. When comparing the rate of internal nasal valve formation for each time in our study and that of Miman, we recognized that there is a difference among rates. The differences could be explained that the nasal morphology of Vietnamese differed from that of the Caucasians according to the results of Tran Thi Anh Tu's research. **Conclusion:** The results of each type rate of internal nasal valve in structural formation in our study were different from that of Miman.

Keywords: structural formations, internal nasal valve, endoscopy.

I. INTRODUCTION

The nasal valve area mentioned in the medical literature occupies the most impedance in the nasal cavity. It is located about 1.3 cm from the nares. This area is constituted by lateral wall, nasal septum and inferior turbinate.



The features of the internal nasal valve have been rarely discussed, since its variations revealed by Miman's study through endoscopy, posted and quoted by many international magazines and researches. Miman classified the structures of the internal nasal valve according to the relation between the caudal border of the upper lateral cartilage and nasal septum after visual analyses of endoscopic images. This classification resulted in six different types: convex, concave, sharp angle, blunt angle, twisted caudal

border, and angle occupied by the septal body. However, in Viet Nam these figures have not discussed much more through the endoscopic examination.

II. SUBJECTS AND METHODS

Study Design: A cross sectional descriptive study. Sampling Method: Convenient Random Sampling

Subjects: Medical students from Can Tho University of Medicine and Pharmacy

Place: Can Tho University Hospital. There were 139 cases with 278 nasal cavities.

Time: From November 2011 to December 2014

Sampling Setting: The medical students of Can Tho University of Medicine and Pharmacy did not have any complaint of chronic nasal congestion over 3 months.

Excluding Criteria

- Younger than 18
- Suffering an operation of nasal septum, inferior turbinate or nasal dorsum in advance, including traumatic nasal reconstruction.

- Having acute sinusitis

Means and Conditions

- A Karl Storz 0° – 4 mm endoscope

- Karl Storz Camera

- Light source from halogen lamps

Sampling Methods

A hundred and thirty nine students participating the study were examined by endoscopy in each naris twice.

First time: Without nasal decongestant.

The participants were examined by the endoscopy. Then we saved the results in two types of information. One was in static state saved in .jpg and one was in kinetic state saved in .mpg.

- Second time: With nasal decongestant, 2-3 sprays over 15 minutes

- + The participants were examined again and the results were saved in 2 types of information like above.

- + When examining by the endoscopy, the participants did not breathe to ensure that the lateral nasal wall was stable.

- + The scope was put in parallel to the caudal border of the upper lateral cartilage to take the image of the internal nasal valve.

Result processing

Determining the types of the structural formation of the internal nasal valve through endoscopic examination according to Miman's classification: convex, concave, sharp angle, blunt angle, twisted caudal border, and angle occupied by the septal body.

The results were processed by SPSS 18.0.

III. RESULTS AND DISCUSSION

There were 139 students participating in this study with 278 nasal cavities.

Age and gender: Male 61 (43.9%) Female 78 (56.1%)

The average age: 21.2 +/-1.4. The youngest was 18 and the oldest was 26

Gender	Male	Female
Number of participants	61	78
Rate	43.9%	56.1%

The number of participants in this study was equivalent to that of Miman's study.

Regard to the average age, this figure in our study had an inconsiderable difference from that of Miman's.

Types	Sharp angle	Blunt angle	Concave caudal border	Convex caudal border	Angle occupied by the septal body	Twisted caudal border
Right side	44	21	7	5	45	17
Left side	45	13	7	9	50	15
Total	89	34	14	14	95	32

Until now, the classification of the internal nasal valve features performed by Miman et al in 2006 is the unique study that has been published and quoted in many international reports. Miman noted the relation between the caudal border of the upper lateral cartilage and nasal septum to mention to the septal body to classify the various shapes of the internal nasal valve.

The septal body is an erectile structure, observed in CT-scan and MRI. It has not been noted much in rhinology.

In our study, in the relation between the septal body and the formation of the angle, the septal body was determined as a notable anatomical landmark in internal nasal valve area. The percentage of the ability to appear a big-enough septal body to form the type of internal nasal valve corresponding with the angle of this type was 34.2%.

There was a difference in the rates of the nasal valve types between our study and Miman's. This could be explained by the lower nasal bridge of Vietnamese people compared to the European. According to Tran Thi Anh Tu's study, the features of the nose in most Vietnamese people were low, convex and broad.

Our study figured a significant difference in the type of twisted caudal border compared to Miman's, 11.6% and 1.6% in corresponding. It could be explained by the overlapping of the alar cartilages, appearing in 20% in Tu's study.

IV. CONCLUSIONS

There were 139 participants with 61 males and 78 females.

The results were the types of internal nasal valve based on Miman's classification:

Sharp angle: 89 (32.01%)

Blunt angle: 34 (12.23%)

Convex caudal border: 14 (5.04%)

Concave caudal border: 14 (5.04%)

Angle occupied by the septal body: 95 (34.17%)

Twisted caudal border: 32 (11.51%)

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(Received: 06/11/2018 - Accepted: 08/01/2019)

FETAL HEART RATE FEATURES AND TREATMENT EVALUATION OF ACUTE FETAL DISTRESS IN NULLIPARITY AT OBSTETRICS DEPARTMENT, CAN THO CENTRAL GENERAL HOSPITAL

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ABSTRACT

Objectives: To describe fetal heart rate (FHR) features and to assess treatment outcomes of intrapartum fetal distress in nulliparous women. **Materials & Methods:** cross-sectional study on 171 women with acute fetal distress at Obstetrics department, Cantho Central General Hospital. The factors of FHR such as baseline, variability, accelerations, decelerations, contractions and FHR result were recorded. Newborns were assessed by neonatal care methods and Apgar scores at 1 and 5 minute. The data were analyzed with SPSS 18.0. **Results:** The total rate of inconclusive and abnormal FHR was 88.89%; including 39,77% abnormalities of baseline FHR, 16.38% abnormality of variability, 14,04% absence of accelerations and 41.20% decelerations. After birth, rate of abnormalities of 1 minute Apgar score and 5 minute Apgar score was 23,98% and 10,53%, respectively; 4,68% babies were admitted to Cantho Children's Hospital and none of the newborns died. **Conclusions:** The ratio of abnormal FHR was 88.89%. The absence of accelerations and the abnormalities of baseline relate to status of newborns. 23.98% newborns had abnormal postnatal Apgar and 8 babies were admitted to Cantho Children's Hospital.

Key words: FHR, Acute Fetal Distress

I. INTRODUCTION

Acute fetal distress endangers patients and infants' lives, which is rated 9.47% and often occur in delivery. Acute fetal distress is one of the most serious causes of dead in infants and children under one year of age. Moreover, in case of late detection and treatment, the long-term sequela of the disease can cause mental and physical problem for babies. Therefore, it is important to assess fetus in nulliparity to protect fetus as well as