EFFECT OF SEPTOPLASTY ON MEAN PLATELET VOLUME IN PATIENTS OF DEVIATED NASAL SEPTUM

1Dr Fatima Tuz Zahra, 2Dr. Muhammad Ahmed, 3Dr Iqra Iftikhar
1Allied Hospital Faisalabad, 2Cardiac Centre Chunian, District Kasur, 3Avicenna Medical College & Hospital.

Abstract:
Background: Average platelet volume resembles to regular magnitude of platelets also, researches demonstrated that great platelets remain enzymatically also metabolically extra vigorous also have prothrombotic possible. Long-lasting higher airway similar noticeable nasal septal nonconformity principals to advanced platelet volume also vice versa septoplasty process drops capacity of platelets ended the phase of period also hereafter decreases additional related comorbidities.

Objectives: The current research remained completed by the purpose to examine outcome of Septoplasty on Platelet volume Points in cases by Noticeable Nasal Septal Nonconformity.

Methods: The potential research remained completed in the over-all of 60 cases which remained nominated from ENT OPD also ENT Ward of Sir Ganga Ram Hospital Lahore from September 2017 to August 2018 afterward correct history also inspection.

Results: Information gotten from preoperative also postoperatively blood study remained examined applying balancing t-trial also this stayed statistically showed that afterwards Septoplasty, platelet volume remained meaningfully depressed in cases that had Marked Nasal Septal Nonconformity.

Conclusion: Septoplasty theatres the significant character in dropping MPV worth in respondents through Noticeable nasal septal nonconformity also therefore additional comorbid circumstances might remain prohibited through doing septoplasty in those cases.

Keywords: Nasal septal nonconformity; septoplasty; platelet volume.

Corresponding author:
Dr. Fatima Tuz Zahra,
Allied Hospital Faisalabad.
INTRODUCTION:
Average platelet volume resembles to regular magnitude of platelets also researches demonstrated that great platelets remain enzymatically also metabolically extra vigorous also have prothrombotic possible. Long-lasting airway similar noticeable nasal septal nonconformity principals to advanced platelet volume also vice versa septoplasty process drops capacity of platelets ended the phase of period also hereafter decreases additional related comorbidities [1]. Nasal septal deviation remains the typical etiology of the nasal obstacle, albeit nasal check may remain brought about through different situations comparable turbinate hypertrophy, adenoid hypertrophy, and nasal polyposis. The current research remained completed by the purpose to examine outcome of Septoplasty on Platelet volume Points in cases by Noticeable Nasal Septal Nonconformity [2]. Around 80% of the all-inclusive community is evaluated to have some sort of nasal distortion. After the septum is fixed then it might be balanced out briefly with little plastic cylinders, supports, measure packs or sutures inside that remain evacuated in a proper way of time. A regular scope of platelet volumes is 10.8–13.9 fL (femtolitre), equal to circles 3.67 to 3.8 μM in breadth [3]. Ordinary range is given as 8.6-12.6 fL. Checked NSD (MNSD) reasons constant upper aviation route deterrent (UAO) that might prompt alveolar hypoventilation, cor-pulmonale, also pneumatic hypertension. Concentrates demonstrated that expanded MPV remained exhibited in cardiovascular also cerebrovascular sicknesses, for example, hypertension, shaky angina pectoris, myocardial dead tissue, also stroke [5].

MATERIALS AND METHODS:
Potential research remained completed in the over-all of 60 cases which remained nominated from ENT OPD also ENT Ward of Sir Ganga Ram Hospital Lahore from September 2017 to August 2018 afterward correct history also inspection. A total of 60 patients aged 11-55 participated in the study. The respondents remained searched on ENT-OPD and ENT station for real history and evaluation. Well-versed agreement remained gotten of altogether cases. All strategies used in the evaluation were in line by moral values of official as well as the national research governing trusteeship and through Helsinki Confirmation of 1967 and its subsequent corrections or basically indistinguishable good practices. The blood trials of designated cases remained directed in EDTA ampoules for preoperatively average platelet dimensions beforehand septoplasty and were re-examined for the MPV after the 5, 10 and 14 weeks postoperative hour.

Safety criteria:
The evaluation included the occurrence of stepped stray nasal septum for conventional treatment with a full nasal obstacle then cerebral agony, findings of cases by MNSD who relied on frontal rhinoscopy, endoscopic nasal evaluation, in addition radiographic evaluation (non-separate CT yield of nose and paranasal sinuses). Altogether cases experienced septoplasty in vicinity otherwise under GA. The assessment banned a little case by evidence of coronary artery illness, continuous cardiovascular disappointment, thrombocytopenia, DM, kidney otherwise liver failure, hematologic illness, developmental threats, hypothyroidism also hyperthyroidism, safe frame illness, antithrombotic expert otherwise serotonin reuptake inhibitor, ceaseless or primary flammable disease, e.g. bronchial asthma, rheumatoid joint pain and psoriasis. Altogether cases remained adequately surveyed by full point by point anamnesis, general evaluation, respiratory system assessment and low-down ENT evaluation.

RESULTS:
Information gotten from preoperative also postoperatively blood study remained examined applying balancing t-trial also this stayed statistically showed that afterwards Septoplasty, platelet volume remained meaningfully depressed in cases that had Marked Nasal Septal Nonconformity. Among 60 patients thought about 39 (70%) respondents remained man also 21 (30%) were female, which showed a male strength versus woman respondents. The most energetic case participating in research remained 13 years old also the most mature case 48 of age. The man to woman proportion remained 3.2:2. Altogether cases remained collected in four social events A (11-21yr), B (22-31yr), C (32-41yr) and D (>41yr). The most outrageous patient crowds had a place in group A. The social event of the middle age of our study was 25 years. In our estimation, the age event generally had a place in the second to fourth period of lifetime. The maximum frequently perceived indication in the current research remained nasal check in altogether cases, as entirely respondents had MNSD. Complaints about nasal space were shadowed through nasal discharge (59%), headache (49%), wheezing (30%), nasal step into the bucket (13%), wheezing (13%) and anosmia (7%). After septoplasty, the most frequently reviewed improvement was nasal obstruction, as cases show during progress. MPV remained considered higher in patients with MNSD. A large segment of
patients had MPV in variety among 11-14 fl (77%) preoperatively. The preoperatively average of MPV was 12.2 fl and the SD 2.2. At thirteenth week after septoplasty, for example, most outrageous cases had 39(75%) MPV at 10.2-12.0 fl. The mean MPV was 11.4 with 0.96 SD. It was found that basically all cases had thrombocytes. The number of thrombocytes in the course of the milling run is 150,400 to 400,500 for each cubic millimeter.

Table 1: Preoperatively MPV: Sum of cases in individual age sets by MPV:

| Age Set | MPV (<9) | MPV (9.2-10.1) | MPV (10.2-11.1) | MPV (11.2-12.1) | MPV (11.1-13.0) | MPV (>14) |
|---------|----------|----------------|-----------------|-----------------|-----------------|-----------|
| Set A   | -        | -              | 4               | 4               | 7               | 5         |
| Set B   | -        | -              | 1               | -               | -               | -         |
| Set C   | -        | -              | 3               | 3               | 2               | 5         |
| Set D   | -        | -              | 6               | 4               | 1               | 2         |
| Overall | 0        | 0              | 14              | 11              | 10              | 12        |

Table 2: Post-Operatively MPV at 5th,10th and 14th week:

| Age set | Sum of cases thru MPV (<9) | Sum of cases by MPV (9.2-10.5) | Sum of cases by MPV (10.2-10.0) | Sum of cases by MPV (11.1-12.0) | Sum of cases by MPV (11.1-12.1) | Sum of cases by MPV (>12) |
|---------|-----------------------------|--------------------------------|---------------------------------|---------------------------------|---------------------------------|--------------------------|
| A       | 0                           | 0                              | 0                              | 0                               | 0                               | 0                        |
| B       | 0                           | 0                              | 0                              | 0                               | 0                               | 0                        |
| C       | 0                           | 0                              | 0                              | 0                               | 1                               | 1                        |
| D       | 0                           | 0                              | 0                              | 0                               | 2                               | 3                        |
| Total   | 0                           | 0                              | 0                              | 0                               | 2                               | 3                        |

DISCUSSION:
Septoplasty theatres the significant character in dropping MPV worth in respondents through Noticeable nasal septal nonconformity also therefore additional comorbid circumstances might remain prohibited through doing septoplasty in those cases. The nasal square is an average sign in the practice of ENT medicine [6]. NSD is an incredibly standardized explanation for monotonous and infinite nasal deterrence. The purpose of the study was to verify how much employment the septal deviation affects the wind current concluded nasal cavity, that disturbs oxygen gratified in blood provoking hypercarbia, thus leading to an increase in MPV at the delegated time. Mustafa Sagit et al (2014) analyzed a overall of 65 respondents of septoplasty at the MPV level and their evaluation showed that in patients with MNSD the MPV levels decreased at a very basic level after septoplasty. They similarly emphasized the possibility that MPV is prolonged by DNA in infinite nasal obstruction and that this development corresponds to the reality of DNA. Among the cases similar to the controls, MPV was higher in women [9]. In the current research, the preoperatively MPV characteristics remained autonomously matched with the postoperative MPV after 5, 10 and 14 weeks and a consolidated t-test was performed, p-value was 0.001 in completely three sets. Here p-value is considered essential, suggesting that here remains the fundamental reduction in MPV afterward septoplasty [10].

CONCLUSION:
Septoplasty plays very significant part in dropping MPV worth in respondents by Noticeable nasal septal nonconformity also therefore additional comorbid circumstances may remain banned through doing septoplasty in those cases.

REFERENCES:
1. Sagit, Mustafa, et al. "Impact of septoplasty on mean platelet volume levels in patients with marked nasal septal deviation." Journal of Craniofacial Surgery23.4 (2012): 974-976.
2. V.K. Poorey, Pooja Thakur. “Effect of Deviated Nasal Septum on Mean Platelet Volume: A Prospective Study.” Indian J of Otolaryngology Head Neck Surg 2014;66(4):437-440.
3. McNicholas WT. Chronic obstructive pulmonary disease and obstructive sleep apnea: overlaps in pathophysiology, systemic inflammation, and
cardiovascular disease. Am J Respir Crit Care Med. 2009;180(8):692–700.

4. Karpatkin S, Strick N (1972) Heterogeneity of human platelets. V. Differences in glycolytic and related enzymes with possible relation to platelet age. J Clin Invest 51:1235–1243.

5. Jakubowski JA, Thompson CB, Vaillancourt R, Valeri CR, Deykin D (1983) Arachidonic acid metabolism by platelets of differing size. Br J Haematol 53:503–511.

6. Murray JAM, Maran AG, Mackenzie IJ, et al: Open versus closed reduction of the fractured nose. Arch Otolaryngol 1984; 110:797.

7. McKenzie M. Manual of diseases of the nose and the throat. Churchill, London, 432: 1880.

8. Dubin MR, Pletcher SD (2009) Postoperative packing after septoplasty: is it necessary? Otolaryngology Clin. North Am 42:279-285.

9. Liu, S; Ren, J; Han, G; Wang, G; Gu, G; Xia, Q; Li, J (Oct 12, 2012). "Mean platelet volume: a controversial marker of disease activity in Crohn's disease.". European Journal of Medical Research 17: 27.

10. Drager LF, Polotsky VY, Lorenzi-Filho G. Obstructive sleep apnea: an emerging risk factor for atherosclerosis. Chest. 2011;140(2):534-542.