Nasal Surgery and Cardio-Specific PRT Scores in the Navy

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Background

In the military population, otolaryngologists are frequently consulted for concern that nasal obstruction caused by nasal septal deviation is impairing servicemembers ability to perform cardiovascular exercise, impacting not only quality of life but duty performance

Objective

- To examine the effect of nasal surgery on the Navy's Physical Readiness Test (PRT)

Methods

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- Active-Duty Navy personnel with 1 or more ICD-10 codes relating to nasal obstruction
- Outcome was cardio-specific score on the Navy Physical Readiness Test (PRT) 1.5 mile run, in seconds. Exposure was nasal surgery status at time of each PRT

Results

10,741 → 22,360

Servicemembers (with ICD-10 codes of interest and a run PRT score on record)

PRT Scores

After surgery, adjusted mean scores were **slightly slower** or **approximately equivalent** among surgical patients: adjusted mean differences (p-value) of PRT seconds after surgery vs. no surgery were +17 s (p = 0.0002); +4 s (p = 0.3729); +14 s (p = 0.0070); +10 s (p = 0.0759); and +1 s (p = 0.6588) during days 7-90; 91-180; 181-270; 271-365; and >365 after surgery or diagnosis, respectively

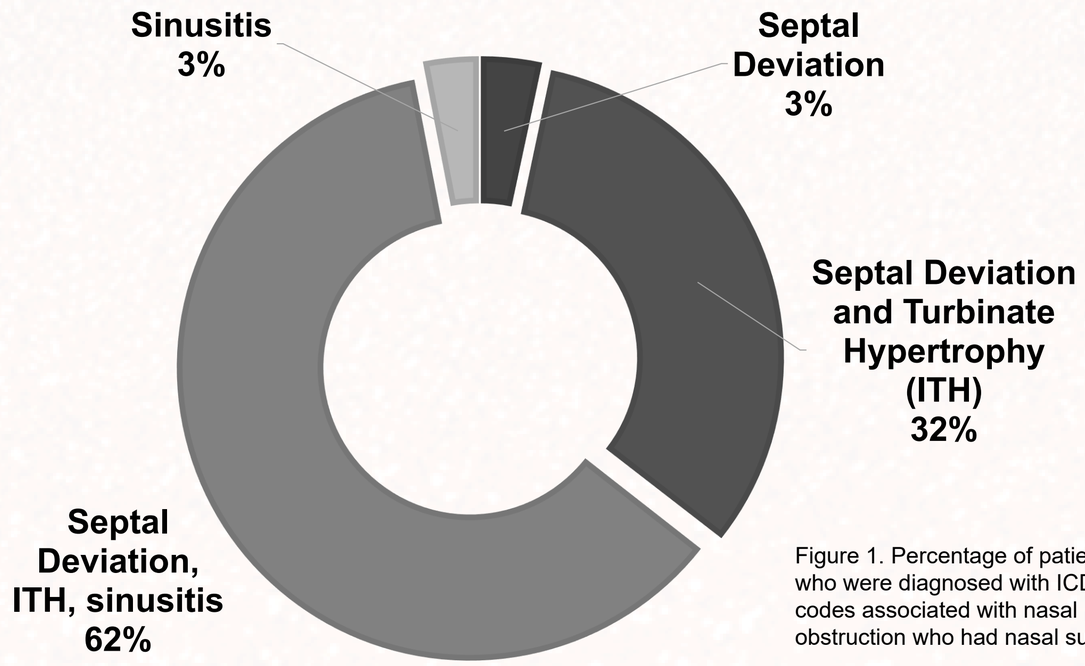


Figure 1. Percentage of patients who were diagnosed with ICD-10 codes associated with nasal obstruction who had nasal surgery.

Conclusion

Nasal surgery was **not associated with improvements** in cardio-specific PRT scores in active-duty Navy servicemembers

Discussion

- Large retrospective cohort
- Most patients had slower or statistically equivalent times in the run portion of the PRT after surgery
- Data suggest a transient period of deconditioning after surgery and limited long-term benefit on cardiovascular performance
- Counseling should emphasize expected recovery and clarify that nasal surgery alone is unlikely to enhance physical readiness and output

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