SUMMARY

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The present study was carried out on 30 patients suffering from heart failure whom were admitted to Benha University Hospital in collaboration with Cardiology Department each patient was subjected to full E.N.T. and Cardiac examination as well as general examination.

Patients with past history of previous E.N.T. problems were excluded.

Management of heart failure was started and followed up by Cardiology Department.

Assessment of central venous pressure was done by utilization of echocardiography and inspection of level of neck veins congestion, also ejection fraction was assessed an was followed up before and throughout the course of treatment at one, three and six months interval.

Also tympanometry and Pure-Tone Audiometry were done At the same time to assess Eustachian tube function and hearing respectively.

Results were collected and statistical analysis was done.

It has been found that before the start of medical treatment the mean of central venous pressure was as high as 12.27 mm Hg which improved to

7.57 mm Hg after 6 months of treatment which show significant improvement.

Also the mean of ejection fraction was as low as 36.63% before administration of treatment and improved significantly to 51.83% after 6 month of treatment.

The mean of Air/Bone gap was 20.33 dB before before administration of treatment, improved to be 10.53 dB after 6 months of treatment which show significant improvement.

The mean of maximum compliance was -175.6 mm H^2O befor before administration of treatment and becomes -50.0 mm H^2O after 6 months of treatment showing significant improvement.

By correlating these results together, it was found that with increased venous congestion hearing loss was more and compliance was to the negative side as well as 8 cases showed flat curve type B.

With the progress of treatment as central venous pressure decreased and ejection fraction increased, tympanomertic results showed improvement of Eustachian tube function expressed by compliance, and improvement of hearing expressed by closure of Air/Bone gap.

Statistical correlation tests proved the relationship.

From the above it can be concluded that with heart failure and hence increased venous congestion, Eustachian tube function become impaired, there is negative middle ear pressure that might increase up to flat curve and conductive hearing loss. This condition improves with improvement of heart condition and decrease central venous pressure.

So much attention should be paid to the hearing of patients with congestive heart failure to improve there mode of life.