SUMMARY

SUMMARY

Endoscopic esophageal variceal sclerotherapy has become a widely accepted treatment for bleeding esophageal varices because it is enough effective and relatively free of major complications compared with surgical alternatives. However the use of sclerotherapy for prophylactic treatment of varices remains controversial regarding the possible sequalae of injection sclerotherapy. Bleeding, perforation, mediastinitis, mesenteric thrombosis, transverse myelitis, sepsis and death, among others constitute major complications which may have a combined incidence of 10-20%. Minor complications including retrosternal pain, pleural effusion, esophageal ulceration, and dysphagia may occur in over 50% of patients.

The aim of this work is to find if routine elective injection sclerotherapy of esophageal varices is associated with any measurable deterioration of respiratory functions and pulmonary haemodynamics post-operatively and if any changes occur after sclerotherapy in circulating platelets and leukocytic concentration.

In our study, pulmonary functions are studied shortly after scelrotherapy and cardiac dynamics are studied three months later and after completing the schedule of injection sclerotherapy.

Accordingly, the study was carried out on 50 patients with liver cirrhosis and portal hypertension. 20 patients (group A) were treated by injection sclerotherapy. Another 20 patients (group B) were completed

the schedule of injection sclerotherapy. In addition to 10 patients (control group) were without history of bleeding or injection sclerotherapy.

All patients were subjected to the following:

1. Proper history taking and clinical examination.
2. Liver function tests for assessment of hepatic decompensation.
3. Arterial blood gases.
4. Respiratory function tests (vital capacity)
5. White cell and platelet count.
6. Echocardiography with doppler study.

Patients of group A were tested before sclerotherapy and one day after scelrotherapy for arterial blood gases, respiratory function tests, white cell and platelet counts and were tested before sclerotherapy and three months later for Echo-doppler.

The results of our study were tabulated and subjected to statistical analysis. The main findings can be summarized as follows:

Cardio-pulmonary manifestations among patients of group A after sclertherapy were found in only 5 patients (25%) as retrosternal pain, but there was no cough, no dyspnoea, nor haemoptysis in any of our patients.

The mean values of forced vital capacity (FVC) was 1.81 ± 0.64 liters in group A before sclerotherapy, 1.36 ± 0.50 liters one day after sclerotherapy, 1.89 ± 0.45 liters in group B and 1.48 ± 0.24 liters in control group. FVC one day after sclerotherapy was significantly decreased than that before sclerotherapy and significantly decreased than that after

completing the schedule of sclerotherapy, but with no significant difference with control group.

The mean values of arterial blood oxygen (PO_2) was 82.74±9.25 mmHg in group A before sclerotherapy, 73.57±9.87 mmHg one day after sclerotherapy, 86.11±7.48 mmHg in group B and 81.35±7.45 mmHg in control group. O_2 saturation before injection sclerotherapy was 96.57±1.65, after sclerotherapy 93.87±2.85, in group B 95.7±2.19 and in control group 95.74±2.18.

PO_2 and O_2 saturation one day after sclerotherapy were significantly decreased than that before sclerotherapy, and significantly decreased than that after completing the schedule of sclerotherapy. There was a significant positive correlation between the decrease in PO_2 and the percentage decrease in FVC in group A.

This means that FVC and PO_2 temporarily decrease one day after injection sclerotherapy but rapidly returns normal again and returns normal after completing the schedule of sclerotherapy. This can be due to embolization of the sclerosant to the lung or intravascular platelet aggregation.

In our study, there were no significant Echocardiographic changes before or after sclerotherapy.

The mean values of white cell count was 5965±3287 in group A before sclerotherapy, 8120±3057 one day after sclerotherapy, 3350±809 in group B and 4130±2486 in control group. White cell count, one day

after sclerotherapy was significantly increased than that before sclerotherapy and than that after completing the schedule of sclerotherapy, and control group.

The mean values of platelet count were 116960±54029 in group A before sclerotherapy, 156500±53820 one day after sclerotherapy, 106950±35099 in group B and 157900±68326 in control group. Platelet count, one day after sclerotherapy was significantly increased than that before sclerotherapy and than that after completing the schedule of sclerotherapy, but with no significant difference with control group.

The temporary increase in white cell and platelet count one day after sclerotherapy can be due to foreign body reaction and increased platelet and coagulation activation following variceal sclerotherapy and this transient rise disappeared after completing the schedule of sclerotherapy.