Transthoracic endoscopic sympathectomy (TES) has been already a standard method for treatment of primary hyperhydrosis. Although the surgical procedure is simple and short, 52% of the patients suffered severe postoperative pain for three or more days.

Objective:
To evaluate the quality of analgesia after transthoracic endoscopic sympathectomy (TES) provided by the systemic use of ketorolac, or paracetamol, and topical infiltration of plain bupivacaine (5ml) 0.5% at both cut ends of sympathetic chain.

Patients and methods:
A prospective controlled randomized study was carried out on 100 patients (aged 11 – 18 years) of ASA I and II physical status of both sex. All patients were premedicated with i.v midazolam 0.03 mg/kg, and fentanyl 1µg/kg. They were randomly divided into four groups: group I (n=25)(placebo group) received i.v.i of 1.5 ml/kg of normal saline, 15 min before interruption of the sympathetic chain, group II (n=25) received i.v.i of 1.5 ml/kg of paracetamol [10 mg/ml] (maximum 1.0 gm), 15 min before interruption of the sympathetic chain, group III(n=25) received i.v.i of 1.5 ml/kg of ketorolac tromethamine [0.3 mg/ml] (maximum 30 mg), 15 min before interruption of the sympathetic chain, and in group IV(n=25) topical infiltration of 2ml of plain bupivacaine 0.5% at the two cut ends of sympathetic chain was done with special injector needle, 15 min before and just after interruption of the sympathetic chain, also, skin infiltration with 2ml of plain bupivacaine 0.5%at the port sites was done. Supplemental i.v morphine 0.02 mg/kg was given as needed to maintain VAS below 50 mm. Postoperative changes of heart rate, B.P, 100 mm VAS, and the total doses of morphine consumption were recorded and statistically analysis was done.

Results:
Patient's demographics, time of surgery, recovery time as well as patient discharge from hospital were comparable in all groups. Heart rate, B.P, and VAS were significantly lower in group II, III, and IV at one and six hours postoperatively as compared with the placebo group. VAS at six hours postoperatively was significantly lower in group III (Ketorolac) [3(5–7)] and group IV (bupivacaine) [2(4–6)] when compared with group II (paracetamol) [6(3–9)]. Total doses of morphine consumption were significantly higher in group I (placebo) as compared with the other three groups. The incidence of postoperative nausea and vomiting was significantly higher in group I (placebo) and in group III (Ketorolac) as compared with group II (paracetamol) and group IV (bupivacaine).

Conclusion:
The use of topical bupivacaine 0.5% at both cut ends of sympathetic chain with infiltration at site of entry of port showed better pain scores after transthoracic endoscopic sympathectomy.