SUMMARY AND CONCLUSION

This study included 50 patients (34 males and 16 females), the mean age was 45.8 years (21-69) suffering from renal stone disease who were treated by extracorporeal shock wave lithotripsy (ESWL) using Dornier U/30 lithotripter. These patients were evaluated by history taking, physical examination, laboratory investigations and radiological studies.

The patients were categorized into 3 groups:

Group "A": included 22 patients received petroleum jelly as a skin contact in ESWL.

Group "B": included 11 patients received eutectic mixture of local anaethesia (EMLA) cream as a premedication 60 minutes before ESWL session and used ultrasound gel as a contact medium.

Group "C": included 17 patients received ultrasound gel only as a contact medium in ESWL.

These patients had solitary kidney stone located in the pelvis or one of the calyces. The mean stone size was 15.26 mm (8-22). There was no or mild to moderate degrees of hydronephrosis with no distal obstruction.

There was no statistically significant difference between the three groups as regard the above mentioned data.

We evaluated the pain tolerability during ESWL session using the pain score. The pain was intolerable in 4 patients (18.18 %) in group "A" and in 7 patients (63.64%) in group "B". All the patients in group "C" experienced intolerable pain and received i.v sedative analgesic (Nalbuphine).

Successful stone fragmentation rate was 86.36% in group "A", 81.81% in group "B" and 82.53% in group "C".

In conclusion, this study has demonstrated that petroleum jelly as a skin contact in ESWL is a good agent that significantly reduced requirement of intravenous and local anaesthesia. It is non-invasive and available, and avoids the patient hazards of opioids, although its precise mechanism of pain reduction is not completely understood.