INTRODUCTION

Extracorporeal shock wave lithotripsy (ESWL) has revolutionized the treatment of urinary stone disease because of its simplicity, efficacy, and minimal morbidity ***(Chaussy et al., 1980).***

Although a number of procedures are available for the treatment of urinary stones, ESWL is now considered one of the most important standard treatments and is performed on an ambulatory basis. Shockwave related pain is one of the most significant side effects of ESWL ***(Demir et al., 2007)***.

The pathogenesis of pain in ESWL is still poorly understood but is considered to be multifactorial. The cutaneous superficial skin nociceptors and visceral nociceptors such as periosteal, pleural, peritoneal, and/or musculoskeletal pain receptors are two important components responsible for causing pain during ESWL ***(Weber et al., 1998)***.

Different analgesic agents including opioids (morphine, pethidine, and fentanyl), NSAIDS, local anaesthetic agents, and a number of combinations have been used during ESWL by various analgesic techniques (general anaesthesia, regional anaesthesia, subcutaneous and intravenous (IV) injections, patient-controlled analgesia is used commonly during ESWL ***(Gupta and Kumar, 2008; Monk et al., 1991; Vickers et al., 1991)***.

Opioids seem to be a favorable analgesic during ESWL, however, opioid administration may be problematic, especially at high doses, since ESWL is generally carried out in an outpatient setting. Therefore, different techniques have been tried for decreasing the dosage of opioids ***(Reichelt et al., 1999; Tritrakarn et al., 2000)***.

The effectiveness of local anaesthesia for extracorporeal shock wave lithotripsy is reported to be good, and general anaesthesia is necessary for only 5% to 10% of patients. Most centers today use general anaesthesia only for children. Eutectic mixture of local anaesthetics (EMLA) cream is a topical anaesthetic drug designed for use on intact skin ***(Demir et al., 2007)***.

Most of pain results from cavitations at the skin surface is blocked by petroleum jelly (Vaseline). Cutaneous petroleum jelly application to reduce the need for sedative analgesia might be especially useful in outpatient ESWL procedures ***(Heidenreich et al., 1995)***.

Petroleum jelly is a physiologically well tolerated, noninvasive, inexpensive material and could be used as a skin contact in extracorporeal shock wave lithotripsy (ESWL) with significant reduction of ESWL-related pain. It reduces the requirements of intravenous analgesics and anaesthesia during ESWL procedure with no reduction in the stone fragmentation rate was observed during in vitro or in vivo study ***(Becker et al., 1999)***.

The petroleum jelly used as contact medium during ESWL presents a significantly smaller score in the visual pain score in comparison with the lubricating jelly ***(Avalos et al., 2003).***