

Music as an Easy Tool to Reduce the Need for Analgesia in Extracorporeal Shockwave Lithotripsy (SWL)

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As the Oxford dictionary defines it, pain is not only a highly unpleasant physical sensation caused by illness or injury but also involves mental suffering or distress [1]. If a proper patient distractor could be set, would it disturb pain's awareness?

There are many studies investigating this feature, it seems that one of these odd pain killers would be music, which can in fact, modulate pain and anxiety [2-5]. Although the exact brain mechanism is still unknown there is plenty ongoing research, although heterogenous, all highlight that music must play a role by turning aside consciousness and cognitive processing from pain to some sort of simultaneous conscious activity such as listening to music. In other words, playing music should perform enough distraction to shift the attentional resources from pain focus to another.

According to recent publications [5-8], music reduces pain while undergoing different clinical tests and treatments such as prostate biopsy, cystoscopy, colonoscopy, laceration repair, colposcopy and intracardiac catheterization among many others. Plenty of them carry enough noxious stimulation to require strong analgesia to inhibit sensory pathways up to the encephalic centers, such as the periaqueductal grey region and the amygdala [4,5].

Extracorporeal shock wave lithotripsy (SWL) is one of the standard methods to treat ureteral and kidney lithiasis [9]. These patients normally suffer from pain during this treatment, mostly when the stone is targeted inside the kidney or in the proximal ureter. It is mandatory to keep the patient still in order to focus the shock waves against the stone and increase the energy per wave to finally break the stone. Both issues mainly mean performing a sharp management of pain and comfort, but there is still no standard analgesia protocol. In such scenario, music has recently demonstrated to be an easy, cheap and effective method not only to reduce pain during extracorporeal shock wave lithotripsy (SWL) [10] but also improving patient's comfort during the entire treatment. It is effective during the standard 3500-wave session as well as in the new 7000-wave session protocol, which we also use in our department [11], it lasts about one hour and involves a high energy deliverance.

Moreover this pain killing effect would reduce the intravenous analgesic dose requirements jointly with their undesirable side effects and also work for SWL in patients with double J stent, who normally suffer from an increased discomfort and ache due to the presence of this foreign body inside the urinary system [12].

So based in our experience, music lowers pain perception during SWL among many other therapeutic procedures, and must be considered as a cheap and easy way to reduce pain in conjunction with standard analgesia.

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