

Effect of different musical types on shock wave lithotripsy for kidney stone treatment

Submission date	Recruitment status	<input type="checkbox"/> Prospectively registered
14/07/2018	No longer recruiting	<input type="checkbox"/> Protocol
Registration date	Overall study status	<input type="checkbox"/> Statistical analysis plan
29/07/2018	Completed	<input type="checkbox"/> Results
Last Edited	Condition category	<input type="checkbox"/> Individual participant data
30/07/2018	Urological and Genital Diseases	<input type="checkbox"/> Record updated in last year

Plain English summary of protocol

Background and study aims

Kidney stones are solid crystals of waste products from the blood that can build up in the kidneys. A treatment for kidney stones is extracorporeal shock wave lithotripsy (SWL), which is where shock waves from outside the body are used to break apart the kidney stones so that eventually, they are small enough to pass through the urine. SWL can cause pain and anxiety for patients. The aim of this study was to investigate the effects of listening to different music types during SWL on the patient's pain control, anxiety level, and satisfaction.

Who can participate?

Adults who have a radiopaque kidney stone 10-20 mm in diameter localized in the renal pelvis or ureteropelvic junction

What does the study involve?

All patients will receive SWL, but will be randomised into five different groups:

1. Group 1 wears no headphones and listens to no music during SWL
2. Group 2 wears headphones but listens to no music during SWL
3. Group 3 listens to Turkish art music with headphones during SWL
4. Group 4 listens to Western classical music with headphones during SWL
5. Group 5 listens to music of their choice during SWL

Patients will then be asked to provide pain and anxiety scores after treatment.

What are the possible benefits and risks of participating?

The possible benefit of participating is reduced levels of pain and anxiety associated with SWL treatment. The only risks to participants are the standard risks associated with SWL treatment.

Where is the study run from?

Department of Urology, Faculty of Medicine, Adiyaman University, Adiyaman, Turkey.

When is the study starting and how long is it expected to run for?

May 2015 to January 2018

Who is funding the study?

The study is self-funded:

1. Dr Ali Çift (Turkey)

2. Dr Alper Gök (Turkey)

Who is the main contact?

1. Dr. Ali Çift, alicift@mynet.com

2. Dr. Alper Gök, alper_gok@hotmail.com

Contact information

Type(s)

Scientific

Contact name

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Additional identifiers

Protocol serial number

1

Study information

Scientific Title

Effect of different musical types on patient's relaxation, anxiety and pain perception during Shock Wave Lithotripsy

Study objectives

Is there effect of listening different music types during extracorporeal shock wave lithotripsy on the patient's pain control, anxiety level, and satisfaction?

Ethics approval required

Old ethics approval format

Ethics approval(s)

University of Adiyaman ethics board, 22/06/2016, 2016/5-5

Study design

Observational prospective randomised cohort study

Primary study design

Observational

Study type(s)

Prevention

Health condition(s) or problem(s) studied

Kidney stones

Interventions

Shock Wave Lithotripsy. Participants were randomly divided into the study groups.

Brief summary of methodology: The patients were divided into five groups by randomizing prospectively. A total of 150 patients (30 participants in each group) who underwent first-session SWL were included in the study. Demographic data related to patients and procedure, State-Trait Anxiety Inventory-State Anxiety (STAI-SA), Visual Analog Scale (VAS) scores, willingness to repeat procedure (0: never 4: happily), and patient satisfaction rates (0: poor 4: excellent) were recorded immediately after the procedure.

Participants were randomly divided into five study groups:

1. Group 1 wore no headphones and no music was played during extracorporeal shock wave lithotripsy (ESWL)
2. Group 2 wore headphones but no music was played during ESWL
3. Group 3 listened to Turkish art music with headphones during ESWL
4. Group 4 listened to Western classical music with headphones during ESWL
5. Group 5 listened to music of the participant's choice with headphones during ESWL

Intervention Type

Mixed

Primary outcome(s)

The following were assessed immediately after the extracorporeal shock wave lithotripsy procedure:

1. Anxiety, assessed using the State-Trait Anxiety Inventory-State Anxiety form (STAI-SA)
2. Pain, assessed using the Visual Analog Scale (VAS)

Key secondary outcome(s)

The following were assessed immediately after the extracorporeal shock wave lithotripsy procedure:

1. Willingness to repeat procedure, assessed on a scale of 0-4 where 0 indicates "never", 1 indicates "very little", 2 indicates "little", 3 indicates "much" and 4 indicates "happily"
2. Patient satisfaction, assessed on a scale of 0-4 where 0 indicates "poor", 1 indicates "very little", 2 indicates "little", 3 indicates "much" and 4 indicates "excellent"

Completion date

30/01/2018

Eligibility

Key inclusion criteria

1. Radiopaque stone 10-20 mm in diameter, localised in the renal pelvis or ureteropelvic (UP) junction
2. Aged 18 years of old

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Lower age limit

18 years

Sex

All

Key exclusion criteria

1. Previous treatment with shock wave lithotripsy
2. Ureteral stents
3. Renal colic

Date of first enrolment

01/07/2016

Date of final enrolment

30/11/2017

Locations

Countries of recruitment

Türkiye

Study participating centre

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Sponsor information

Organisation

University of Adiyaman, Adiyaman, Turkey

ROR

<https://ror.org/02s4gkg68>

Funder(s)

Funder type

Not defined

Funder Name

None

Results and Publications

Individual participant data (IPD) sharing plan

The datasets generated and analysed during the current study are available upon request from Dr. Ali Çift by e-mail (alicift@mynet.com). All the data is available in Excel format for all researchers whenever wanted. Written informed consents were obtained from all patients for participating to this study. There are no ethical or legal restrictions.

IPD sharing plan summary

Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes