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Abdomınal, Cranıal and Sacral Paın formed Due to Tarlov Cyst: A Case Report

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Abstract: Tarlov cysts are seen accidentally in routine spinal screening and generally asymptomatic bening cysts full of cerebrospinal fluid. In treatment of symptomatic cases many treatment modalities as surgical and nonsurgical are used. In our 20 years old case, she was operated with over cyst diagnosis and then in screening done due to headache Tarlov cysts was found. At the first stage of treatment done due to neuropathic pain tradamol was not preferred however when it was added to treatment it strengthened clinical effect and the life quality of patient significantly increased.
Keywords: Tarlov cyst, Tramadole, Neuropathic pain.

INTRODUCTION

Perineural cysts were first discovered accidentally and defined by Tarlov in 1938 during autopsy [1].

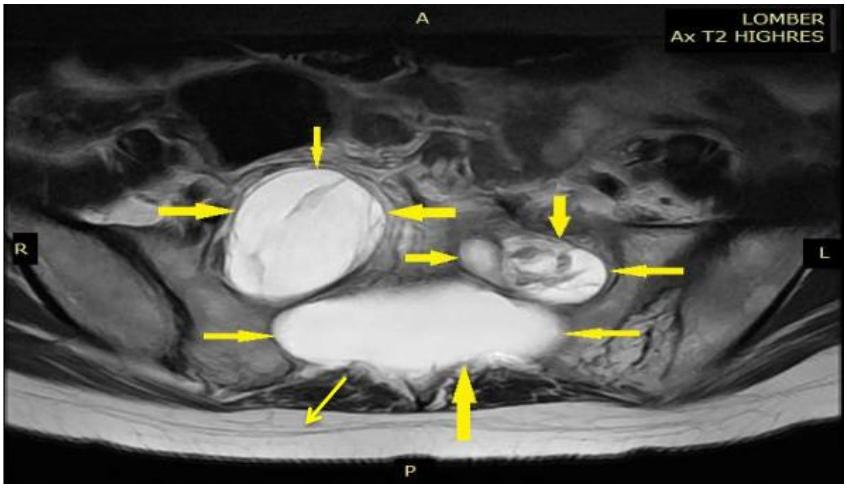
Tarlov cysts are mostly asymptomatic (symptomatic ones < 1%) bening cysts full of cerebrospinal fluid that are rooted in perinerium, form in sacral region and cluster around spinal nerve roots next to ganglion and are encountered coincidentally during routine spinal screening [1-4].

As symptomatic Tarlov cysts are treated typically as surgical and nonsurgical (neddle aspirations, steroid injection, oral steroids, transforaminal epidural injection, pain killers etc.) approaches, some cases heal spontaneously [3,5-7].

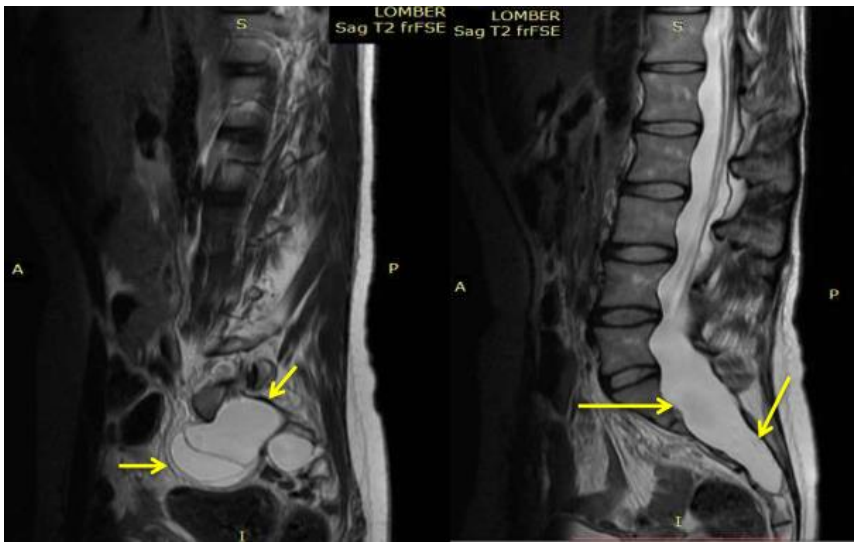
In this case, the course of Tarlov cysts that can be complicated due to iatrogenic reasons and the usage of tramadole in non-malign pain, are presented.

CASE REPORT

20 year old female patient applied to hospital with a compliant of abdominal and inguinal pain. As a result of examinations she was applied laparoscopic surgery with over cyst pre-diagnosis under general anaesthesia. During exploration in surgery it was found that the cyst did not belong to ovary and the patient was informed in postoperative period. On postoperative second day a severe headache started. The patient suffered from headache for 20 days and then she applied to another hospital. In radiologic screening it was obtained that cisterna magna obliterated with tonsillar herniation and stated that the condition points out intracranial hypotension. Since intracarnial hypotension was thought to be originated from anterior sacral meningocele in abdomen, the patient was applied laparatomy. Headache compliants of patient in whom extensive cerebrospinal fluid was obtained in abdomen and was applied to Tarlov cysts repair, was over in postoperative period however after she was discharged from hospital there came out localized pain complaint in sacral region. Approximately after one and a half months in the same centre the patient was given gabapentin 3x600 mg, amitriptyline 10 mg and tenoxicam 1x1 by Algology Department as the reason of pain etiology was thought as compressive effect of sacral meningocele to pelvic anatomical regions, its intrapelvic extension as well as its expension from neural foramens and sacrial pelvinas. When she applied to our centre she had a complaint of being not able to sit and stand more than 30 minutes so as a result of this she was given tramadole 100mg retard 1x1(morning) and acetaminophen tablet as a medical treatment. It was obtained that the sitting of patient relaxed and the duration of her standing incresed significantly after the third day.



Picture-1: Lumbar Mrg-Axial section, yellow arrows show tarlov cyst and enlarged spinal canal



Picture-2: Big retroperitoneal tarlov cyst that enlarges spinal canal and sacral neural foraminas and reaches out towards pelvis by eroding sacrum

DISCUSSION

Including sacral radiculopathy, urinary and intestine disfunction as well as nonspecific sacrococcygeal, a series of symptoms regarding Tarlov cysts were defined [8]. Although most of Tarlov cysts are thought to be asymptomatic, in literature they can come out with radicular leg pain [2,9,10] or perineal pain [11] if they especially involve sacral nerve roots. Generally the patients state that the symptoms get worse with coughing, standing up and position change. That can be explained with the increase of cerebrospinal fluid. Relaxation is usually provided by lying [6]. In our fact the first complaint of patient in application to hospital was inguinal pain, after surgical treatments the symptoms such as being not able to stand up, lumbar-leg pain, decrease in pain during sitting and lying, were in the forefront.

There could not be reached a consensus on ideal treatment method of symptomatic cysts. There were just a few number of published datas on the course of Tarlov cysts. There is not also well defined criteria for surgical or conservative treatment of these cysts [6].

Jain *et al*. expressed the necessity to avoid surgical treatment in cysts involving nerve roots since surgical treatment can sharpen pain. That is why surgical treatment should be done after evaluating the location of cyst, the possibility of relapse, if the surgeons have sufficient experience before surgery [12].

Surgical indications that have been reported by many authors until today, are formed by cases in which cyst size is > 1.5 cm, postural changes and increasing of pain due to Valsalva maneuvers [12-15].

Conservative treatment approaches that are suggested as the first choice, involve medical therapy (analgesic and nonsteroidal antiinflammatory drugs) and physical therapy. Mitra *et al.* presented 2 symptomatic perineural cyst case that they treated with conservative methods (oral and epidural steroid) [5].

In peripheral neuropathy different classes of drugs are used either alone or combined together. Gabapentin shows anti-hyperalgesic effect by affecting dorsal root ganglions and spinal cord [16] and also takes place in the first stage of treatment of lumbar pain and neuropathic pains accompanied with radiculopathy. Generally the results of treatment are succesful and scientific evidence level is accepted high [17,18]. In spite of this, it was not effective in the first stage in our case and the complaints of patient continued.

Tramadole shows its analgesic effect over mu receptors. At the same time it contributes to this effect by inhibiting serotonine and noradrenalin reuptake. In one meta-analysis tramadole was expressed not to be more effective than non-steroidal antiinflammatory drugs [19].

Acetaminophen is widely used, although its effect mechanism is not exactly known [20], by combinating with opioids to decrease opioid requirement.

In a current animal experiment it was shown to use tramadole and gabapentin together in neuropathic pain is more effective in inhibiting of proinflammatory cytokins by showing sinergic effect than using them singly [21]. Freeman et. al in their study showed that tramadole/acetaminophen combination is significantly effective than placebo in diabetic neuropathies [22]. In a collected work done on treatments of neuropathic pain, tramadole and acetaminophen combination is advised in pain inflammations [23].

In the light of all these information although tramadole is seen to be an analgesic drug of mild effective level and advised to be used in the second stage in neuropathic pain, in our case especially when used combined with acetaminophen, there observed an apparent decrease in complaints of patient until the first days.

RESULT

Tarlov cysts usually come out accidentally in screenings done to find the reason of another pain. That is why it is a situation that can be complicated and necessarily kept in mind in pain syndromes.

In chronic pain treatment the aim is to increase life quality. The life quality of patient is tried to be increased with medical and surgical treatment. Conservative treatment is used as a beginning treatment. The aim in multimodal pain method is to obtain aditive and sinergistic effect by using various class of analgesic drugs having different pharmacological mechanisms in nervous system.

In this case it was observed that opioid agent added to treatment of patient having neuropathic pain due to Tarlov cyst, strengthens clinical effect.

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