Case Report

Spondylodiscitis developi[...] catheter use by direct co[...]

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ABSTRACT

Spondylodiscitis is a rare but serious complication of epidural cath[...] is responsible for development of this complication. It may deve[...] spreading. We report a 54-year-old woman who developed spondy[...] whom analgesic and steroid treatment was given for chronic l[...] mechanisms may be responsible. The diagnostic methods, mechanis[...]

Saudi Med J 2005; Vol. 26

The incidence of spinal infections developing after epidural catheterization has increased as a result of the widespread use of catheter[...] analgesic in cancer patients [...] purposes in chronic lumbar pain [...] spinal anesthesia. Meningitis, [...] discitis, osteomyelitis and [...] develop due to epidural catheter [...] a case of spondylodiscitis [...] catheter placement, which has been [...] in the literature. The [...] mechanisms of discitis are [...] treatment strategy.

Case Report. A 54-year-old female patient who had been operated for L4 [...] years ago was evaluated in our [...] lumbar pain. Her anamnesis [...] lumbar pain complaint for over [...] that she had had an epidural catheter [...] L3-L4 level, and she had been [...] intermittent steroid and a local anesthetic agent for 18 days in the algology clinic [...]

her lumbar pain 2 months ago. I[...] conducted [...] 2 day lumbar c[...] showed erythrocyte sedime[...] was 26 mm/hour and her [...] biochemical values were norm[...] discovered at 8 days after epi[...] [...] she developed urinary sy[...] (*Escherichia coli*) and [...] treatment [...] reported th[...] *epidermidis* (*S. epidermidis*), re[...] samples were taken from the [...] catheter and from the catheter[...] presented at our clinic, her whit[...] normal in the blood count and [...] [...] remark[...] direct radiography. Magnetic r[...] showed [...] consistent wi[...] [...] T1-weighted ima[...] [...] T2-weighted ima[...] [...] Her body temperature [...] there was no reproduction in blo[...] [...] scintigraphy [...] not sho[...] except for pathological activity co[...]

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Received 30th August 2004. Accepted for publication in final form 1st January 2005[...]

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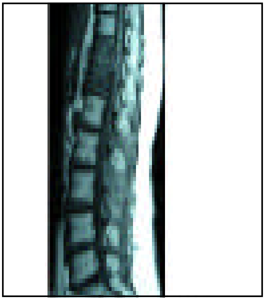

Figure 1 - T1-weighted magnetic resonance image sagittal view showing hypointensity at the corpus vertebra of T11 and T12 due to infection. Also, there is disc degeneration and bulging at the same level.

L1. There was no anomaly in peripheral smear and tumor marker levels. The patient was given wide spectrum antibiotic and immobilization treatment for 10 weeks. The patient did not have any complications throughout the treatment and was discharged upon recovery.

Discussion. Diabetes mellitus, presence of systemic infection at the time of catheterization, catheter type, number of interventions, the period for which catheter is kept in the epidural space are the main risk factors for the development of spinal infections due to epidural catheter use. Immune system failure in cancer patients in whom epidural catheterization is used as an analgesic and administration of steroids via epidural catheter for treatment purposes in chronic lumbar pain, as was the case in our patient, increase the risk of infection.[4,7] Previous studies[5-7] have reported 2 essential ways by which the infection development are activated: hematogenous spreading from another infection focus and direct spreading of microorganisms to the area via the catheter. However, it is difficult to identify which way is active in cases such as ours in whom the clinical status presents itself in a complex manner. After epidural anesthesia, there appears a loss in the tonus of urinary tract and this condition facilitates the development of urinary system infection. Infections of the urinary tract and other pelvic organs, may spread to the spinal column via Batson's venous plexus where there is retrograde venous blood flow when intraabdominal pressure increases.[7]

Steffen et al[6] carried out microbiological analysis of 502 epidural catheters used for postoperative analgesics and microorganisms were reproduced 29 (5.8%) catheters. Other impor study are that reproduction wa period for which the catheter is days and longer, and that t commonly reproduced were *Staphylococcus aureus* (*S.aureus* reported in their studies that th that most rapidly reproduced in *S.epidermidis* and *S.aureus* in developed epidural abscess. T responsible microorganism in mo cases due to epidural catheter is skin brings the mechanism of di via catheter to the fore.

In our case, spondylodiscitis further away from the place whe inserted (L3-L4). As Smitt et al[5] it is remarkable that spinal epid located on the posterior of the sp discitis or osteomyelitis in all c not have any infection located o the spinal canal or along the tra She had urinary system infection the period when the catheter was these data support hematogenou physiopathological mechanism of

It was reported that there reproduction in the small am material that surrounded the ski catheter entered the skin, and in [illegible] epidural cath [illegible] is anoth [illegible] our case. [illegible] venous netw [illegible] long dista [illegible] contamination of [illegible] However, a pr [illegible] that there is the [illegible] being contaminated [illegible] through the skin [illegible] pulled out. [illegible] catheters [illegible] in most cases [illegible] kept for 0-12 day [illegible] that there [illegible] development [illegible] catheter contamination.[8] [illegible] microscopic ex [illegible] from the sp [illegible] of compt [illegible] consistent wi [illegible] were reproduced [illegible] could not be decide [illegible] physiopat [illegible] both physiopathological mechanism, antibiotic treatment that was effe [illegible] *E.coli* and *S.epidermidis*, was star

The nature of lumbar pain may change in spondylodiscitis, and the physician may not notice this change due to chronic patients having psychic effects. A marked increase in ESR, as was seen in our patient, may help the diagnosis of spinal infections that develop after epidural catheter. Therefore, periodical ESR studies should be carried out in the follow-up of patients in whom epidural catheter is inserted.

In conclusion, the route effective in physiopathology may not always be determined in cases of spondylodiscitis which develops due to epidural catheter use and where no microorganisms reproduce. This factor makes it difficult to decide on a treatment strategy.

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