

## Case Report

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# Can I have epidural analgesia if I have tinea versicolor?

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### Introduction

Labor and delivery, while perceived as gratifying and joyful, are nonetheless among the most painful events women can experience in life. Treating pain is nowadays one of the essential elements in assisting women during labor.

Epidural analgesia is the best option to ensure the optimal control of pain for the mother without compromising the well-being of the fetus. The main contraindications to neuraxial analgesia techniques include patient refusal, known bleeding diathesis or abnormal coagulation tests, elevated intracranial pressure (particularly in the presence of an intracranial space occupying lesion), severe aortic or mitralic valve stenosis and infections at the puncture site [1].

There are many pathogens responsible for cutaneous infections at the dorsal-lumbar level, yeasts of the *Malassezia* genus being the most commonly implicated. *Malassezia Globulosa* is the predominant species in the *Tinea Versicolor* infection [2,3]. Also implicated are *M. Sympodialis*, *M. Furfur* and others as

well [4]. These fungi are normal components of the cutaneous flora but the transformation from yeasts to micelia can lead to the pathology. The cause for this occurrence is still unknown, yet there are a few contributing factors leading to this infection that affects mostly adolescents and young adults; these are genetic predisposition [5], heat and humidity, immunosuppression, contraceptives, pregnancy and malnutrition.

It manifests with characteristic hypo- or hyper-pigmented spots alongside the trunk, the neck, and the face. The majority of the times infection is entirely superficial but cases of meningitis and Central Nervous System (CNS) infections from hematogenous spread have been reported [6,7]. The literature supports with data that adequate antiseptic preparation of the skin effectively prevents meningitis occurrence after epidural puncture [8]; other cases are reported where a small incision of the skin allows for a safer passage of the needle directly in the subcutis without going through the corneal layer.

### Case report

A 32 yo primigravida at term (40 w) was admitted in our labor and delivery unit in active labor with painful contractions. The patient was not allergic, her pregnancy was physiologic, and she had a diagnosis of Tinea Versicolor at 36 w by a dermatologist. The patient reported mild truncal pruritus, physical examination of the back showed diffuse hypo-pigmented lesions in dorso-lumbar region. At 4 cm of cervical dilation she asked for epidural analgesia which was administered to her after confirmation of informed consent acquired during the ante-partum anesthesiologic visit at 34 w.

The patient was placed in sitting position and the intervertebral space L3-L4 was identified. After skin disinfection with Chloraprep™ 2%CHG/70% IPA and local anesthesia with Lidocaine 2% 5 ml a small incision of the superficial layer of the skin with a scalpel #11 was performed. The Tuohy 18G needle was then introduced through the subcutis in the epidural space followed by an epidural catheter placement. The skin was sealed with surgical glue and steri-strips. There were no periprocedural complication.

The patient had a painless uncomplicated vaginal delivery; she and her healthy newborn were discharged home 3 days later. No fever or CNS signs of infection were present. The obstetrical follow-up visit after a month and an anesthesiologic follow-up phone call at 6 months were both negative for neurological issues and the patient reported outcome for the whole procedure was excellent.



**Figure 1:** Patient's back.



**Figure 2:** Dorso-lumbar Region.



**Figure 3:** Steril Field.



**Figure 4:** Skin incision.



**Figure 5:** Epidural catheter placement.

### Discussion

Fungal encephalitis and meningitis from spinal canal contamination are exceptionally rare but potentially fatal complications following neuraxial blocks [10]. Compared with spinal anesthesia where smaller atraumatic needles are used (usually 25-27G), epidural analgesia technique requires larger gauge cutting needles (18G) which carry along a potential much higher risk of introducing deeply particles of skin and therefore an increased risk of infection.

Epidural analgesia is the golden standard for pain control in labor and delivery. In Italy this procedure is part of the essential level of assistance; in selected hospitals it is guaranteed to all laboring women asking for it, provided that an informed consent is previously acquired in the context of an antepartum anesthesiological visit and that clinical and environmental conditions are safe for the patient at the time of admission in the labor and delivery unit.

This patient had no other contraindications but fungal infection at the epidural puncture site. Literature supporting data account for additional precautions like a prolonged and deep cutaneous disinfection [7] and a small skin incision allowing to insert the needle under the affected corneal layer [9]. No data exist on a clear superiority of a given choice over another; given the potentially poor neurological outcome in case of fungal CNS infection with risk of neurologic sequelae we decided to sum the benefits of the two methods in the aim of obtaining an additional reduction of the infection risk.

Further studies are needed and data collection necessary to define the best procedure for such cases.

### Conclusion

In patients with Tinea Versicolor, when a woman in labor asks for epidural analgesia a prolonged deep skin disinfection with Clorexidina + Isopropilic alcohol makes the procedure safe. Lacking RCT excluding every potential risk, performing a small cutaneous incision at the site of puncture allows for corneal layer bypass and can be considered as an extra preventive measure against potential CNS fungal infection.

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