

ADDRESSES:
03-152 Warszawa
ul. Modlińska 294
tel. /+48 22/ 597 44 00
fax: /+48 22/ 597 44 44

TRADE OFFICE
00-496 Warszawa
ul. Nowy Świat 7 m.14
tel. /+48 22/ 625 32 15
tel/fax: /+48 22/ 621 58 14



PRODUCER OF MEDICAL SINGLE USE PRODUCTS

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Ladies and Gentlemen !

Since several years conduction anaesthesia is being used ever more widely in Poland and abroad, owing to the development of new anaesthesia techniques, advances in technology and introduction of new, safe and strong acting drugs for conduction analgesia. Conduction anaesthesia is a simple, easily controllable procedure associated with low toxicity and, what is important, cheap. In Poland it is used for one-third of surgical procedures. The cost of this anaesthesia is ten, or even twenty times lower than that of general anaesthesia which reduce the expences of the hospital.

Epidural anaesthesia is widely used for operations, diagnostic procedures and control of pain of various origin.

Ladies and Gentlemen !

We offer you a new set for epidural anaesthesia which is a result of several years of experience of our firm which the production of this type of equipment. It is produced on the basis of French technology from imported materials. It was tested in many important clinical centres in Poland earning positive opinions. The set is not inferior to any sets for epidural anaesthesia produced in western countries.

We are producing our products in Poland and sell them without middlemen which causes that the cost of our products is lower. Owing to this and to its high quality our epidural anaesthesia set is unrivalled in the Polish market.

Elements of the set:

1. TUOHY needle made of high quality, stainless steel in calibres 16G and 18G with centimeter scale on it.
2. Epidural catheter with central and lateral holes, with centimeter scale on it and with Luer-Lock tip.
3. Antibacterial filter of 0,0002 mm pore diameter, flat for easier fastening to the skin.
4. Low-resistance syringe with silicone plunger of 10 cubic centimeters capacity.
5. Normal syringe of 10 or 5 cubic centimeters capacity.
6. Normal needle 0,9 mm in diameter for aspiration of drugs.
7. Normal thin needle 0,5 mm in diameter for anaesthetizing of skin.
8. Spear for skin incision 1,6 mm in diameter.

Procedure

Before starting anaesthesia an access to a vein must be always made available. The position of the epidural space can be identified with the patient sitting or lying on his side. The puncture of the epidural space is done usually from midline or slightly lateral approach. After disinfection of the skin with Ilibitane solution in alcohol and daping with sterile towel the skin is anaesthetized with the thin needle and syringe from the set. The needle is inserted exactly in the midline between the I_3 and I_4 or I_4 and I_5 vertebrae. The orientation point is the line connecting the iliac crests. The skin is incised with the spear and through the incision the Tuohy needle is advanced. When the interspinous or the yellow ligament is reached (which is felt as increased resistance) the mandrin is removed and the low-resistance syringe is attached. The syringe contains 10 ml of normal saline. In adults the distance from the skin to the epidural space in the lumbar area is 3-5 cm. The first and second fingers of the left hand secure the needle and the back of the left hand leans against the patient's back.

After penetration of the yellow ligament by the needle the plunger moves suddenly forward and the resistance to saline injection disappears (the loss of resistance test). If after disconnection of the syringe from the needle no warm cerebrospinal fluid or blood flows out, then 3-5 ml of the local anaesthetic agent is injected and about

3 minutes is allowed to pass. If after that time subarachnoid anaesthesia symptoms fail to appear, the remaining volume of the anaesthetic agent is injected.

In case of continuous epidural anaesthesia, when it is known that the Tuohy needle lies in the epidural space, the operator checks whether the bevel of the needle lies cephalad (this bevel is marked with a mark on the handle). Then the epidural catheter is inserted with the fingers of the right hand, the left hand secures the needle and the back of the left hand leans against the patient's back.

The epidural catheter is threaded through Tuohy needle to the necessary depth checking the distance by means of black markings on the catheter. When the catheter has passed beyond the bevel of the needle it must not be withdrawn because this may lead to cutting off of the catheter. After placing the catheter the needle is withdrawn stepwise by 1-2 cm steps, that is so much as this allowed by the catheter held with right-hand fingers above the handle of the needle for preventing position change of the catheter.

After removal of the needle the catheter is fastened with several adhesive tapes over a sterile gauze pad. The Luer-Lock tip is connected to the antibacterial filter which is fastened to the skin. Then the initial dose of the anaesthetic agent is given and if the symptoms of subarachnoid anaesthesia fail to appear the whole dose is injected.