Title: COMBINED SPINAL - EPIDURAL NEEDLE (CSEN)

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We would like to describe a new device we have developed to facilitate the use of the combined spinal-epidural approach for regional anesthesia.
An epidural needle 18G is brazed with silver alloy to a spinal needle 20G, as described in the illustration.
The two needles makes a combined spinal-epidural needle (CSEN).
They are of stainless steel.
It gives the ability to perform injections to the two compartments (epidural and spinal) without curving the spinal needle by introducing it through the epidural needle with the danger of breaking its tip.
After finding the epidural space with the CSEN, an epidural catheter is introduced through it to the desired level. Then the obturator from the spinal needle is taken off, and a small-sized spinal needle 25-32G is introduced through it and its tip punctures straightly the dura and enters the spinal space.
An injection of the anesthetic solution is made then into the spinal space.
Then the small-sized spinal needle is taken off, and the CSEN is withdrawn carefully leaving the epidural catheter in place.
CSEN is a novel device in the operating room. It has not the danger of breaking the spinal needle tip when it crosses the epidural needle tip, or of protruding the epidural catheter through the hole in the dura made previously by the spinal needle. It can also lower significantly the occurrence of post-spinal headaches because it allows the use of very small-sized spinal needles.