



## PATIENT PREPARATION

The patient is not given food and water 12 hours before or at least 3 hours before the examination.

For good application of the technique, it is necessary to calm the animal or best of all to perform anesthesia.

The application area is shaved and disinfected

The bladder should be empty.

## CONTRAST MATERIALS

In myelography, two techniques are used to deliver the contrast agent to the subarachnoid space;

1. Atlanto-Occipital Technique
2. Lumbal Technical

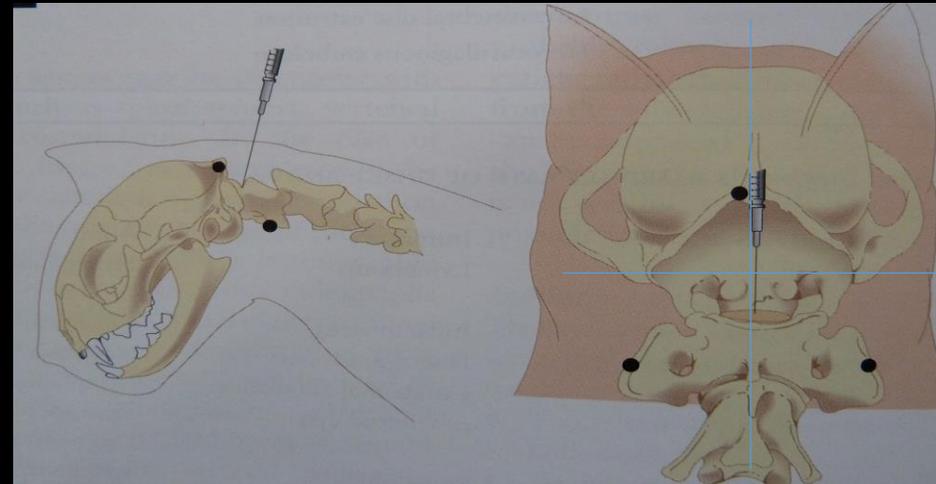
## Atlanto-Occipital Technique

The animal is anesthetized, shaved and disinfected beforehand.

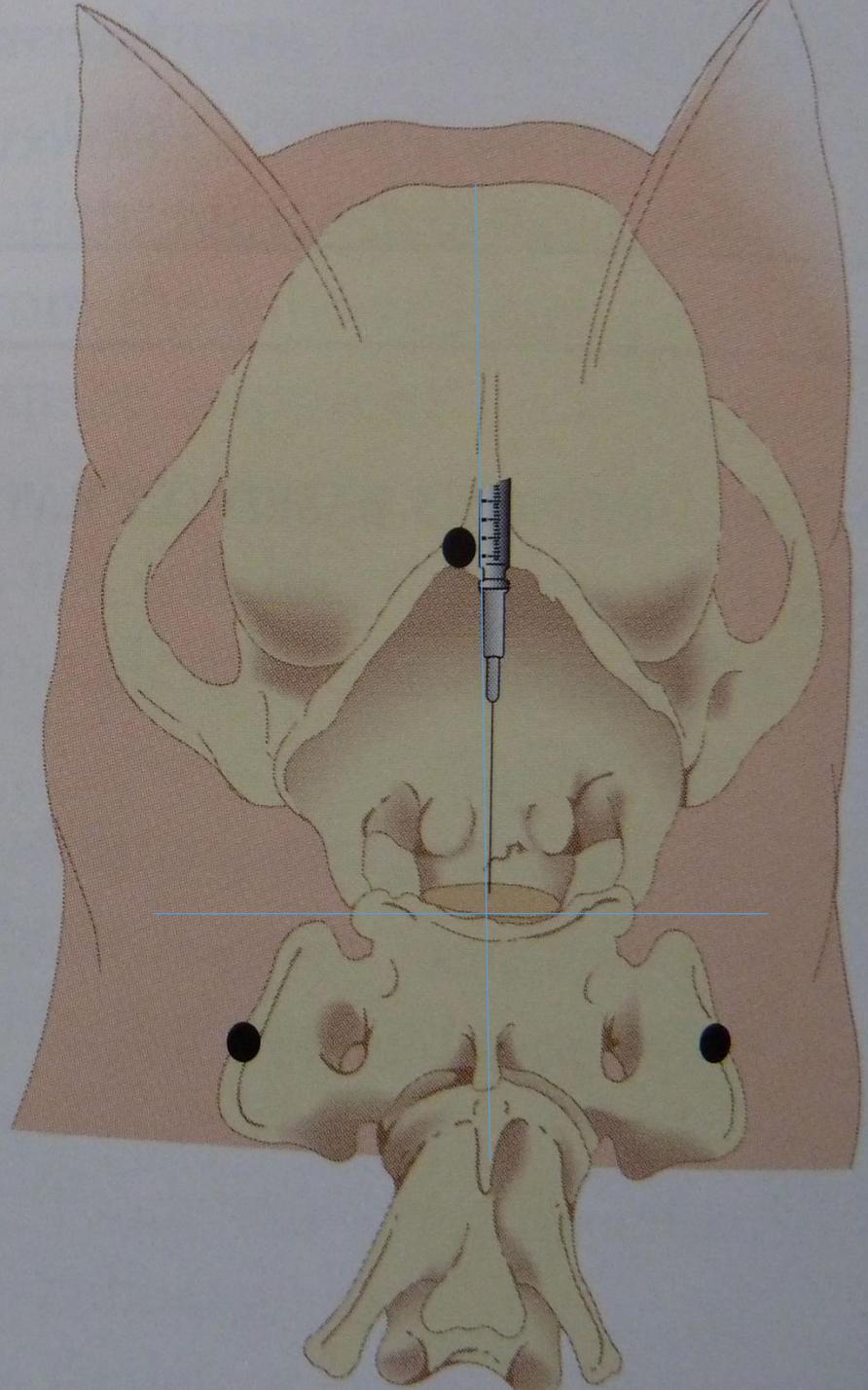
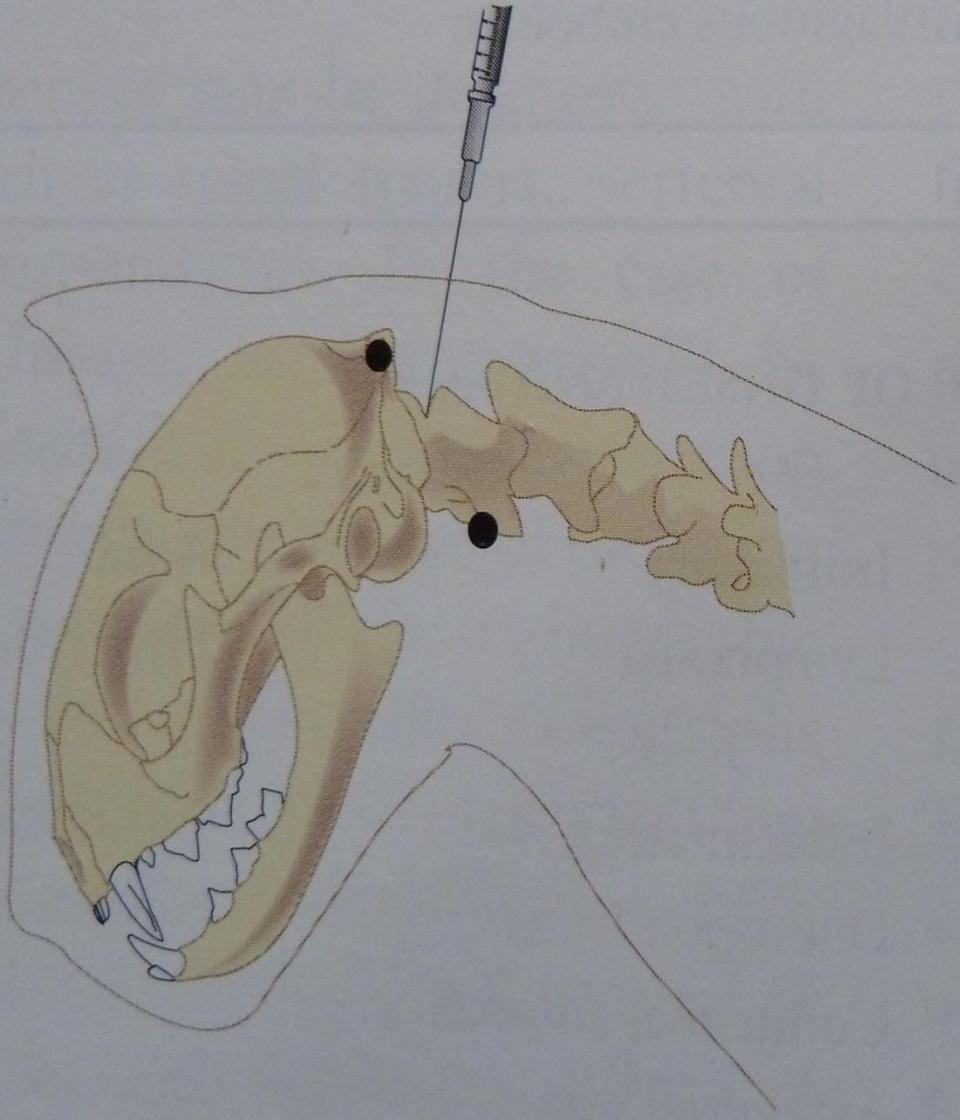
The contrast agent to be injected (1-3 ml according to the animal size) is prepared

The head of the animal is held in the position that forms 90 degrees with the cervical vertebrae

With an appropriate puncture needle, an imaginary transversal line connecting the lateral edges of the atlas is drawn, the needle that lowered from the protuberantia occipitalis externa, is dipped perpendicularly from the point where it crosses the line, than the skin and the intervertebral ligament are crossed.



Below this is the dura mater. When the needle touches here, a flicker is detected on the skin.



**The injector is replaced with the injector with contrast agent without changing the needle and the injection is performed slowly (10 seconds).**

**The table is then tilted to 45 - 60 degrees for easy spread of the contrast agent in the subarachnoid space.**

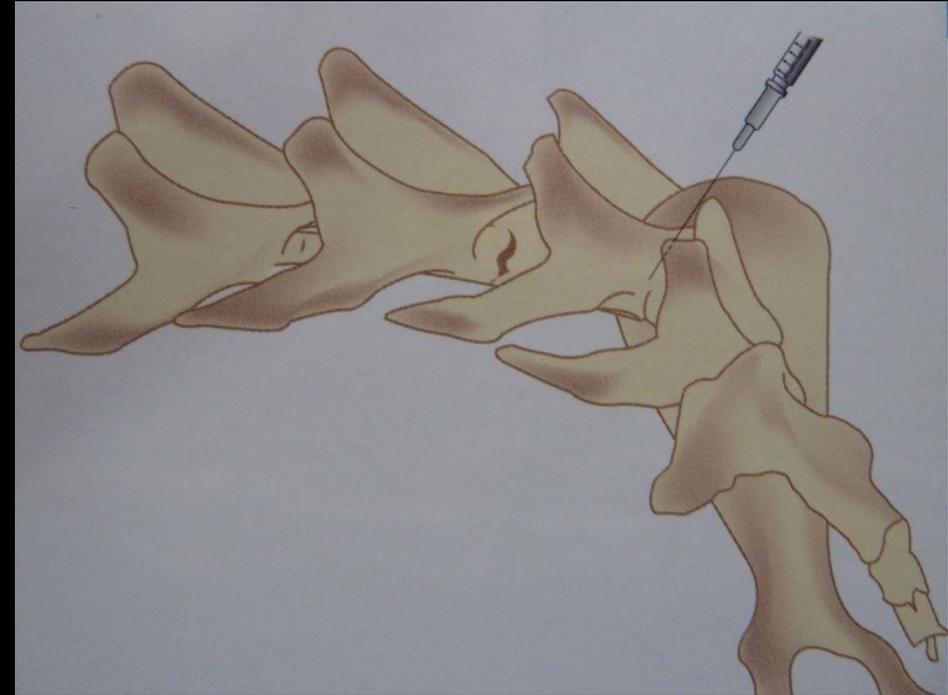
## Lumbal Technique

This technique is difficult to apply, but the risk of complications are less.

As in the prior technique, the animal is deposited in the ventral position. Sandbag or pillow is placed under the abdomen to open the intervertebral space (kyphosis)

The legs are pulled under the abdomen and the animal is brought to a position where the lateral lateral and the vertebralis are in the hyperflexion.

an appropriate diameter injector passes between the L4-5 or L5-6 intervertebral space through the skin immediately in front of the next proc spinosis.



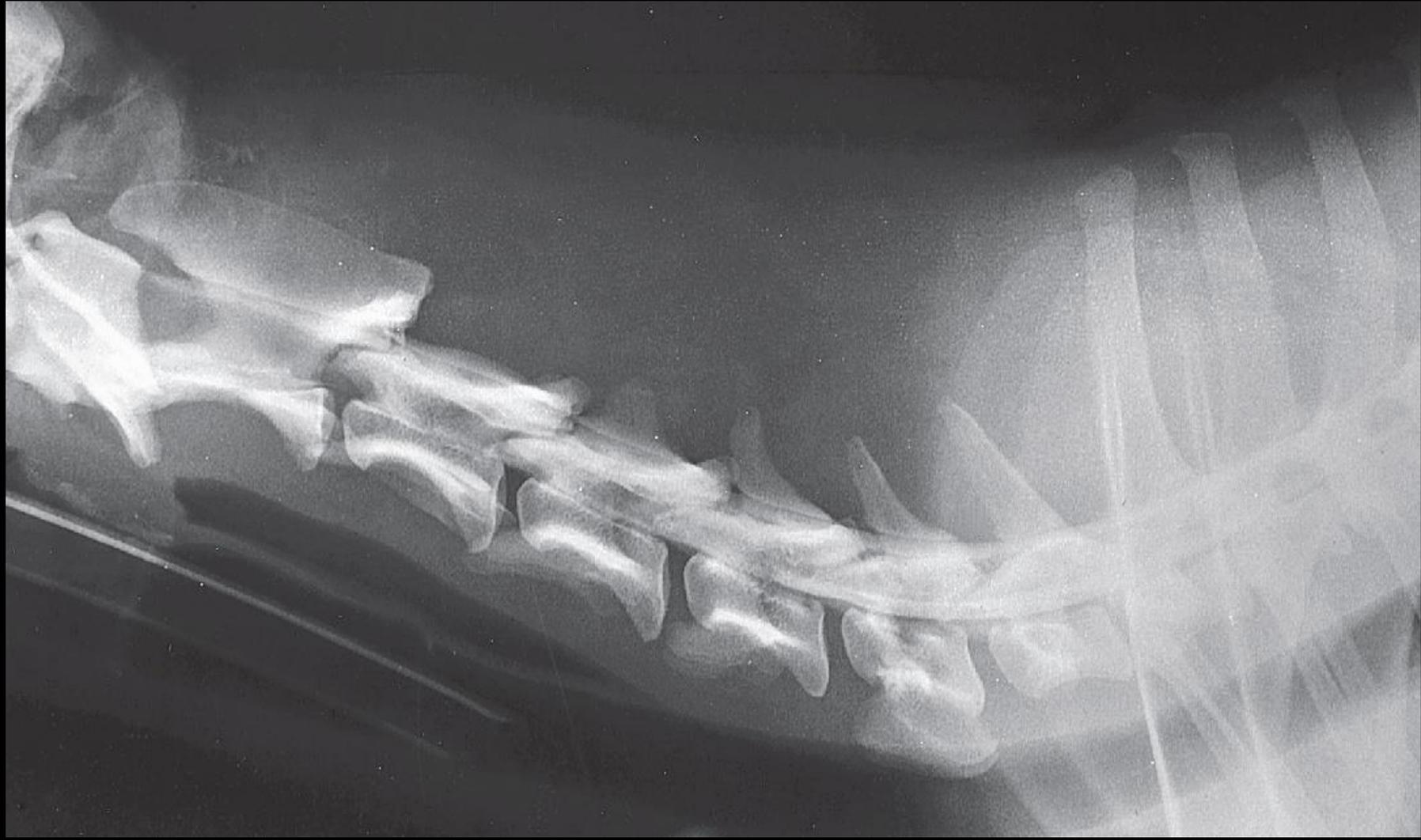
Deri, ligamentler ve duramater önceki teknik de olduğu gibi geçilir.

Verilecek kontrast madde miktarında BOS çekilerek, başka bir enjektörde hazır tutulan kontrast madde yavaş olarak enjekte edilir

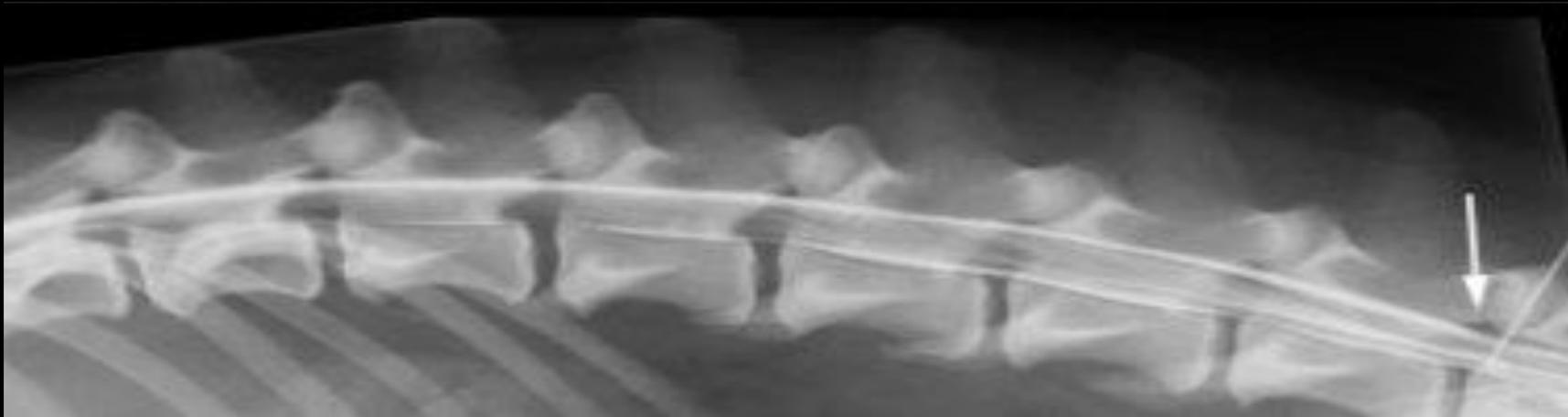
Kontrast maddenin yayılması beklenirken, hayvanın başı yukarıda tutulur. Normal köpeklerde kontrast madde 10 dakikada lumbosakral ekleme kadar ilerler

Normally contrast agent in the subarachnoidal space  
spreads regularly

If for any reason the medulla spinalis is pressed,  
no contrast agent can be seen in the region



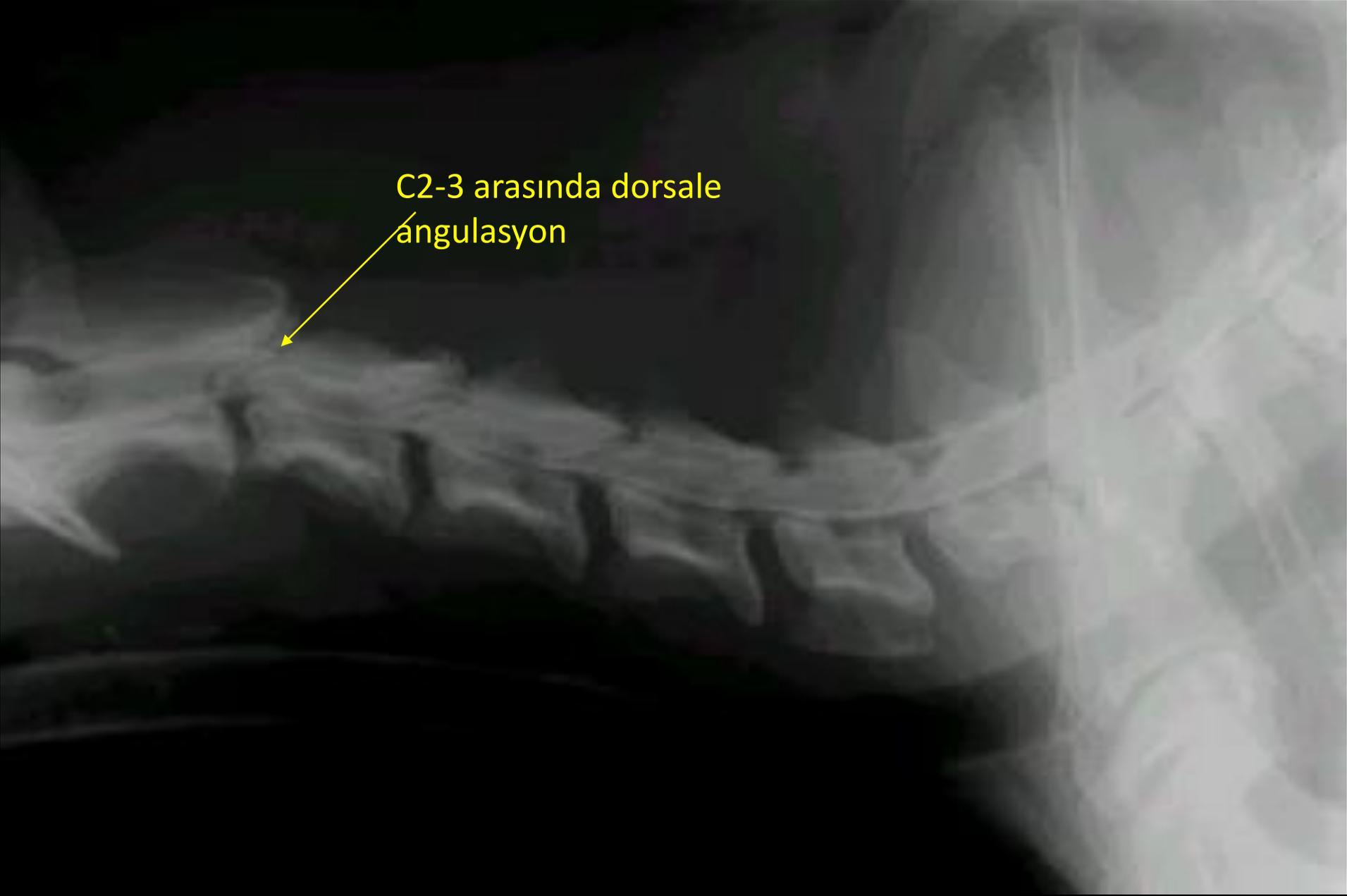




Normal myelographic appearance of the lumbar vertebrae taken in the dog laterolateral position. White arrow shows the location of the spinal needle



C4-5 arasında lezyon

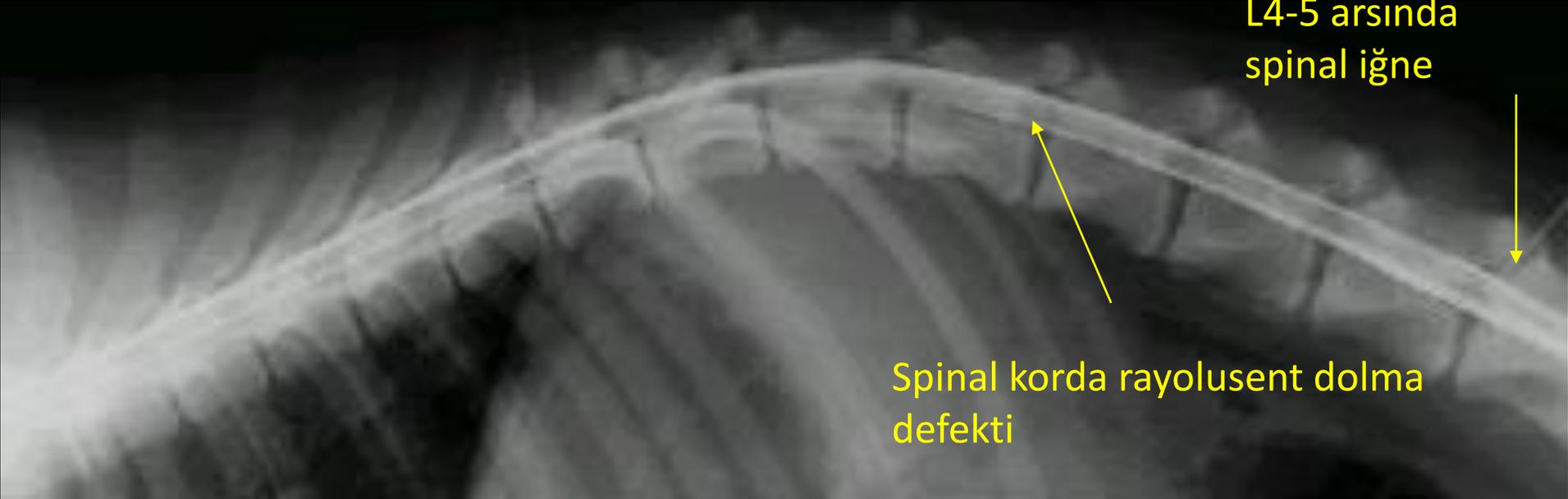


C2-3 arasında dorsale  
angulasyon



L5-6 arasında kontrast madde sızıntısı





L4-5 arsında  
spinal iğne

Spinal korda rayolusent dolma  
defekti



C6-7 arasında açıda büyüklük

C7 de deformasyon



L5 fracture



L1

L4 osteolysis



spondilosis







