

Abstract: The use of Ultrasound in Maternity Neuraxial blocks

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The use of ultrasound to aid epidural needle placement was described by Randall C Cork from Tucson, Arizona in 1980<sup>1</sup>. For nearly twenty years after this very little was heard about the technique with only sporadic mention in literature. My interest in the use of ultrasound to aid the process of epidural analgesia began in 1999, and I continue to use this technique routinely today. Thirty years after the paper by RC Cork, Ultrasound Guidance for neuraxial blocks is only now starting to be accepted as a useful clinical aid for this purpose.

I will discuss the evolution of evidence for the efficacy of ultrasound to aid neuraxial blocks, from many authors, but including some of the many papers on the subject by T Grau and colleagues from Heidelberg<sup>2-7</sup>. I will describe methods found in the literature, both for prepuncture localisation and real-time use, and how I use Ultrasound in my own clinical practice.

1. Ultrasonic localisation of the lumbar epidural space  
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2. The lumbar epidural space in pregnancy  
Grau T et al  
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3. An evaluation of ultrasound imaging for identification of lumbar intervertebral level  
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4. Efficacy of ultrasound imaging in obstetric epidural anesthesia  
Grau T, Leipold RW, Conradi R, Martin E  
J Clin Anesth 2002, 14(3) 169-175
5. Ultrasound guidance for epidural catheter placement: a coming of age  
Ali ME, Laurito CE  
J Clin Anesth 2005, May 17(3) 235-6
6. Ultrasonography may assist epidural insertion in scoliosis patients  
McLeod A, Roche A, Fennelly M  
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7. Single operator real-time ultrasound-guidance to aim and insert a lumbar epidural needle  
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