



Možnosti ultrazvuku v regionální anestézii

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ARO NMnM

A large, faint version of the Celtic knotwork logo is visible in the background on the right side of the slide.

Předpokládané výhody US v regionální anestézii

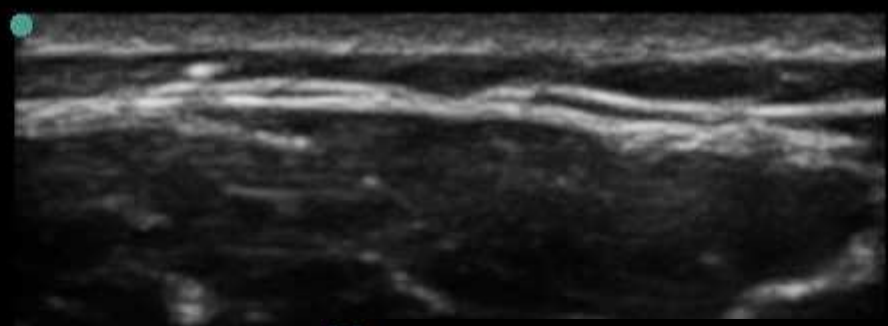


- Umožňuje **přímé zobrazení nervů a okolních tkání** (cév, svalů, kostí, fascií...)
- Umožňuje v reálném čase **zobrazení zavedené jehly** a tím zvolení (na první pokus) optimálního místa vpichu, správného směru a hloubky
- Zlepšuje kvalitu blokády, zrychluje její nástup a zvyšuje procento úspěšnosti blokády ve srovnání s neurostimulační technikou
- Snižuje počet nutných pokusů k zavedení jehly do optimálního místa a tím teoreticky dává předpoklad nižšího rizika nervového poškození
- Umožňuje (v reálném čase) **zobrazení distribuce lokálního anestetika**
- Zobrazení toku lokálního anestetika dává předpoklad časného odhalení intravaskulární injekce
- Zobrazení toku lokálního anestetika dává předpoklad časného odhalení intraneurální injekce
- Zobrazení toku lokálního anestetika dává předpoklad snížení celkové nutné dávky lokálního anestetika

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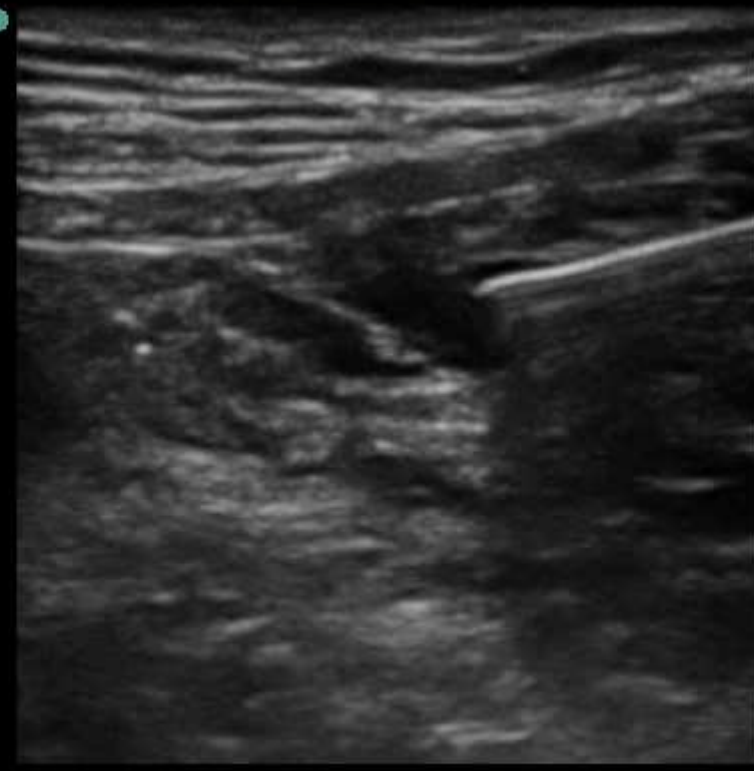
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Limitace neurostimulace



- Neurostimulace je užitečná jen tam, kde můžeme vyvolat motorickou odpověď
- Neurostimulace poskytuje jen nepřímou a bohužel ne zcela spolehlivou informaci o poloze nervu
- Motorická odpověď vymizí po podání prvních ml lokálního anestetika
- Motorická odpověď získaná při < 0.5 mA nemůže zaručit úspěšný a kompletní blok
- Neurostimulace není zcela spolehlivá k zabránění intravaskulární, intraneurální a intrapleurální punkce

Lze sedět jedním zadkem
na dvou židlích?

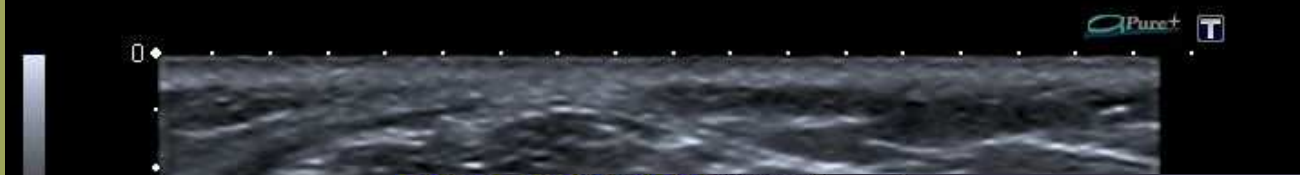


US a úspěšnost blokády +



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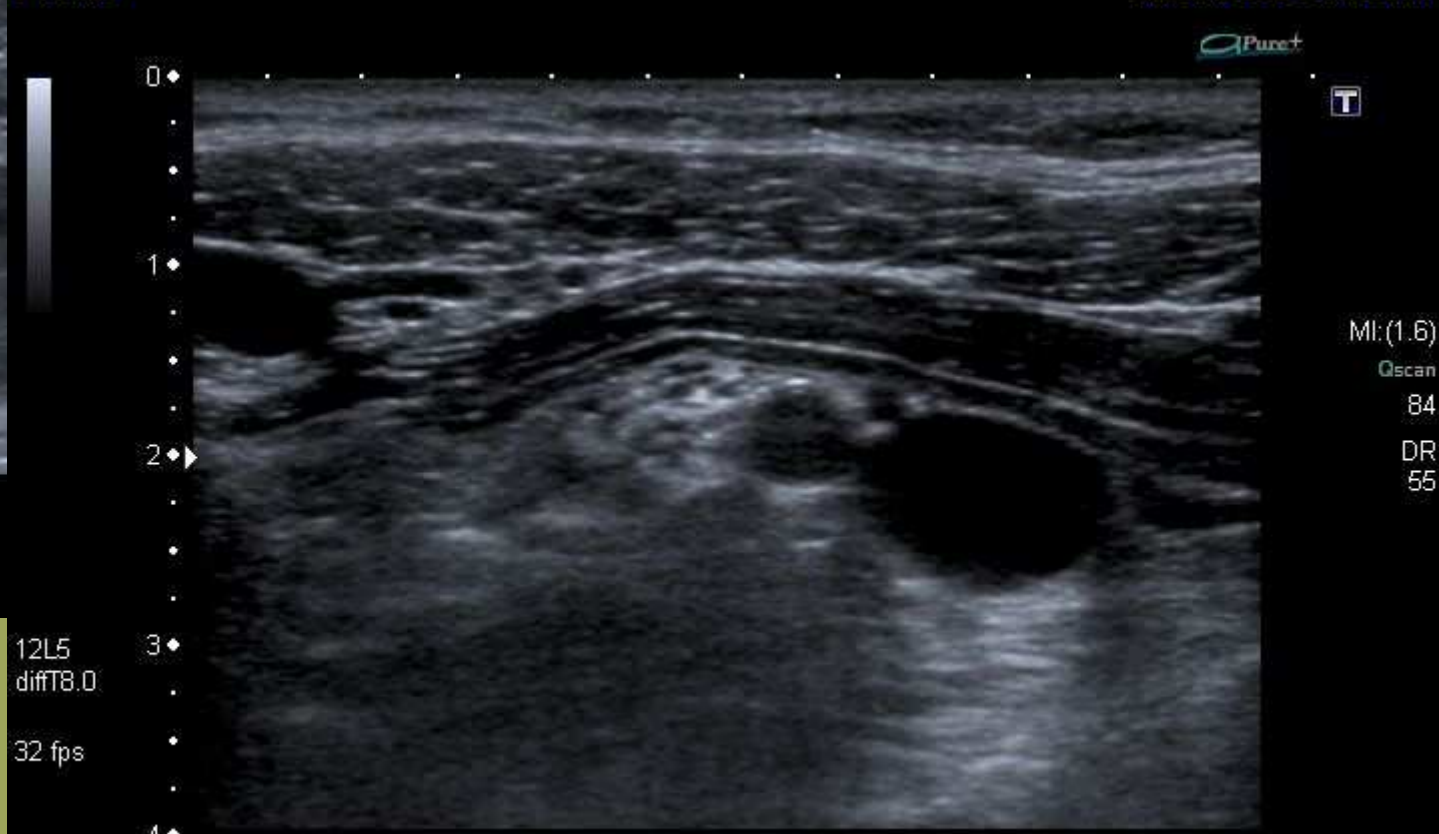


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US a úspěšnost blokády -



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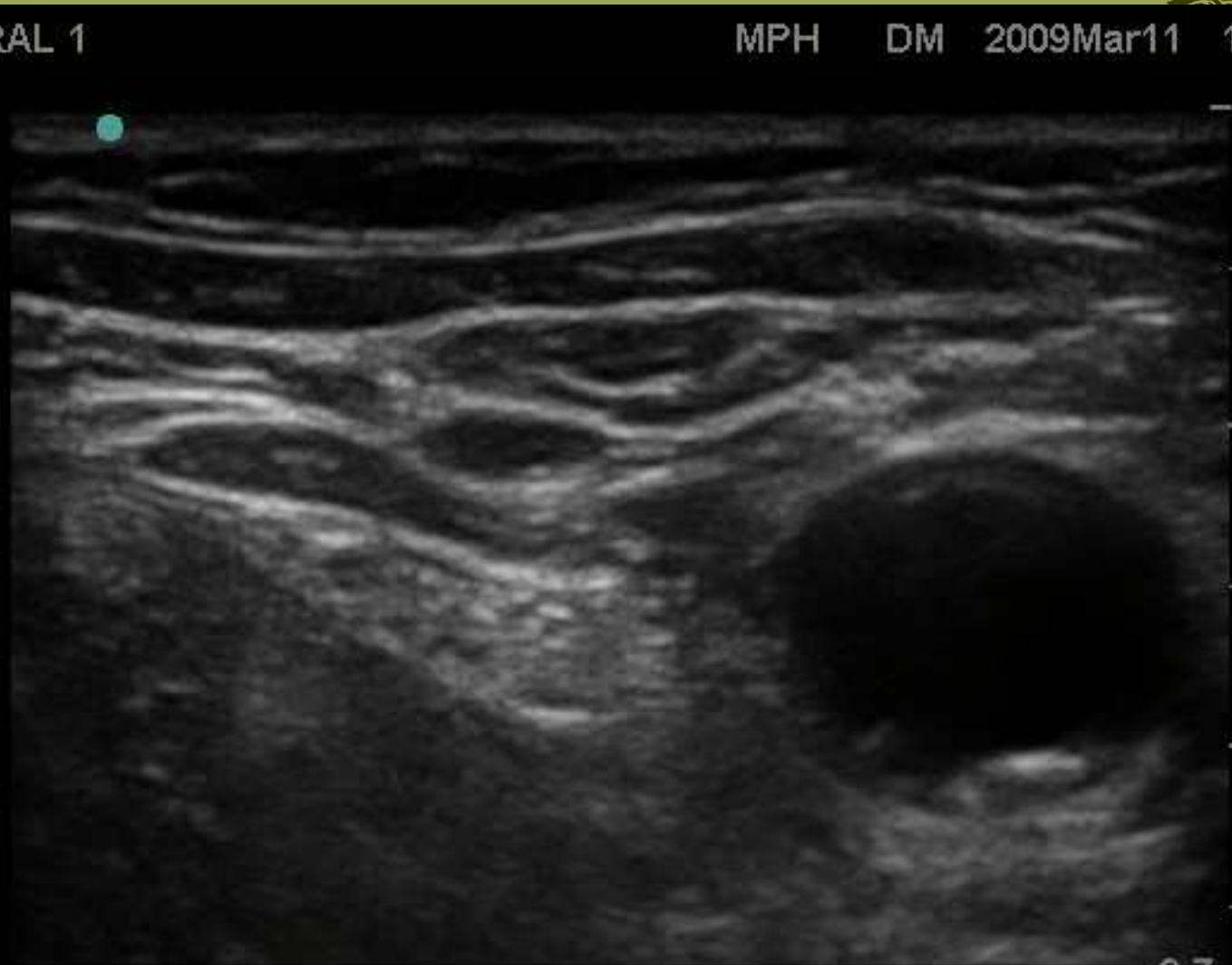
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Gain

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US snižuje dávku LA



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SUPRACLAVICULAR

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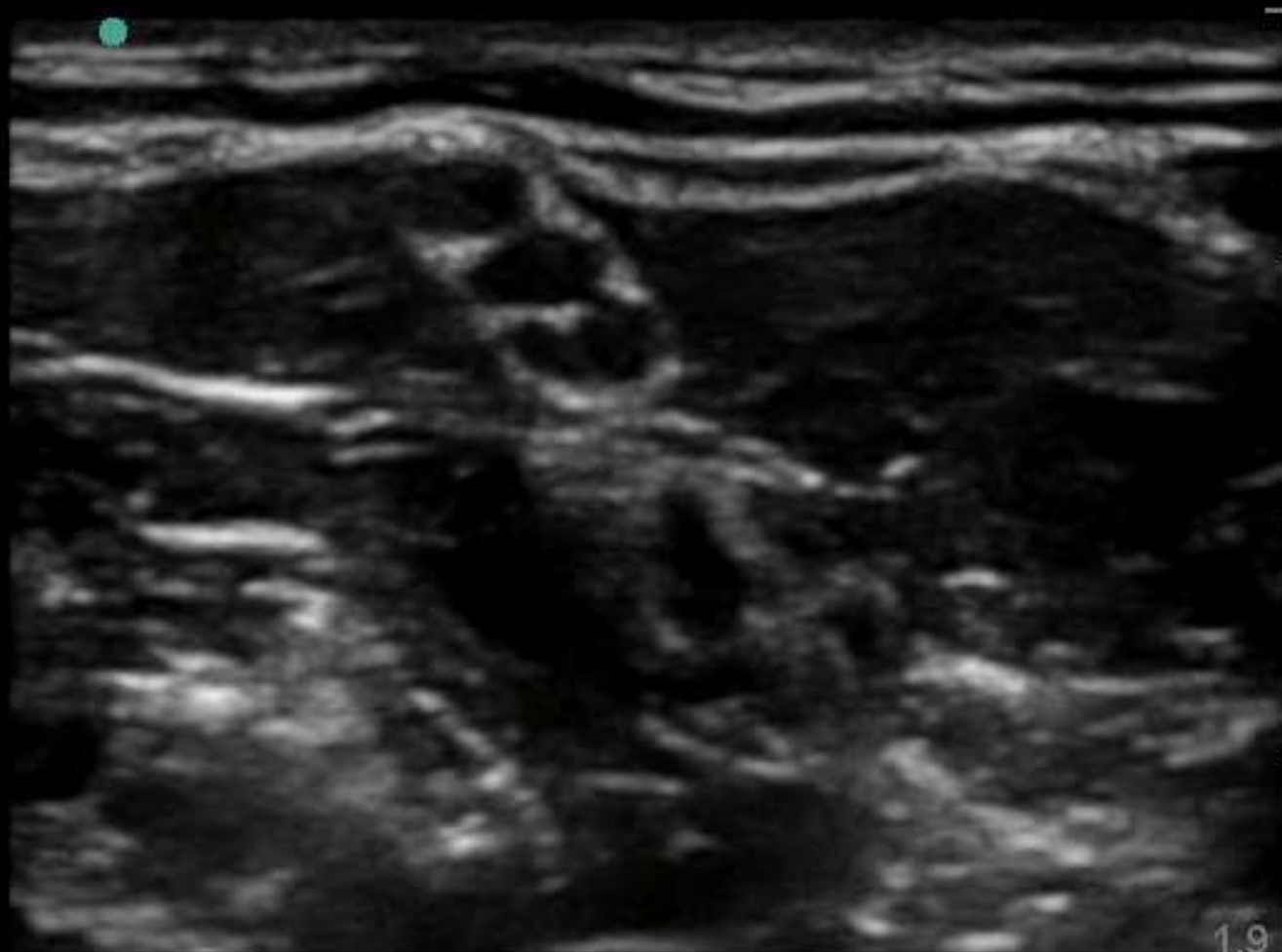
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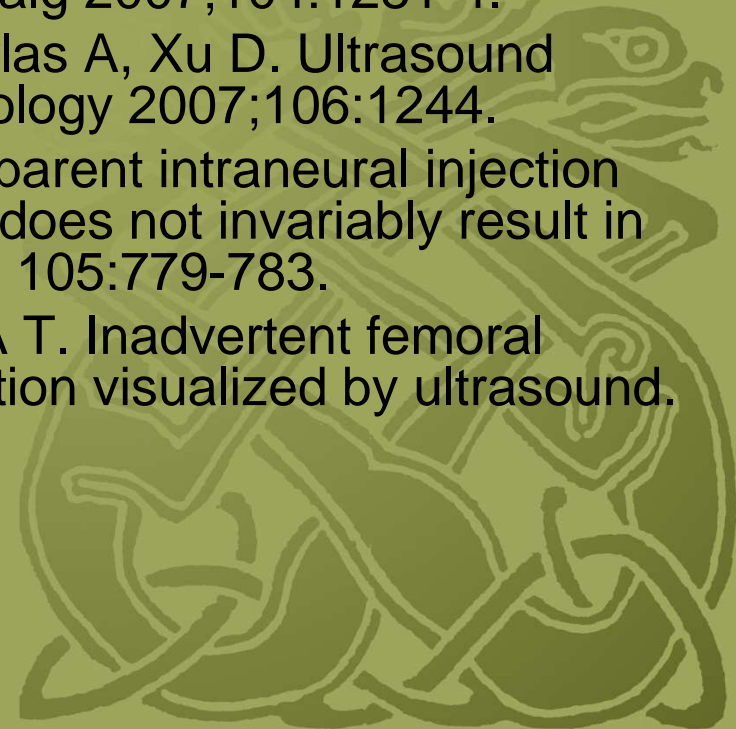
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US a intraneurální injekce



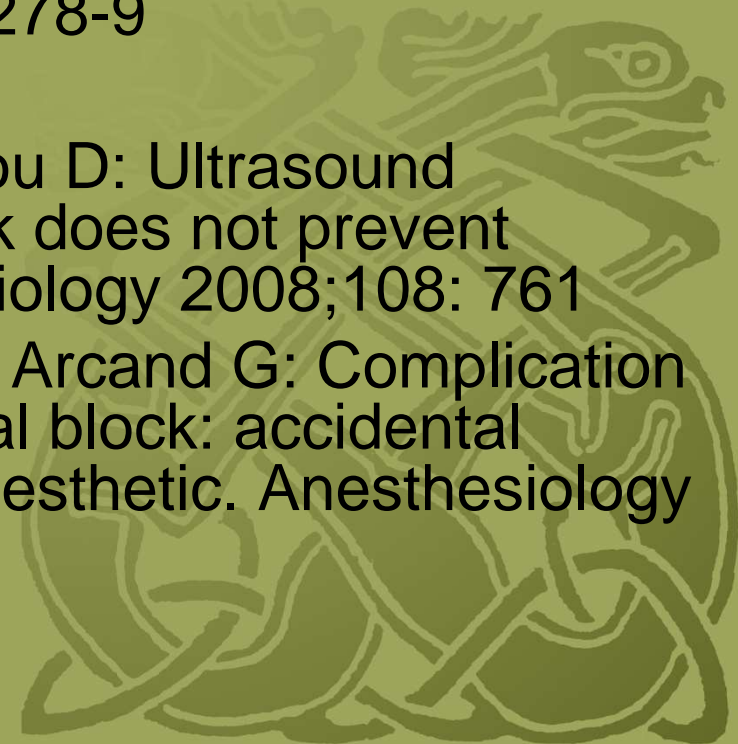
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US a intravaskulární injekce



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US v obtížných situacích



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Jak se rozhodují





děkuji za pozornost

