Navigated liver surgery – an opportunity for the future

In the future, laparoscopic surgery in particular will benefit from further developments in navigation technology. This is the conviction of the authors of an article entitled "Navigierte Leberchirurgie - Aktueller Stand und Bedeutung in der Zukunft" published in the journal "Der Chirurg", issue 10-2018.

The article certifies that commercial navigation technology in liver surgery has a future of growing importance, in particular due to the following performance features:

- Various resection scenarios can be performed and evaluated preoperatively on the computer, which is particularly valuable if there are several tumor nodes in the liver.
- For atypical tumor resection, resection areas can be determined by navigation systems and continuously displayed during parenchyma dissection.
- The possibility of pre-operative image fusion, e.g. with MR data, is interesting if tumors are difficult to visualize intraoperatively due to cirrhosis or after chemotherapy. The resection of invisible tumors is performed in both open and laparoscopic surgery.
- For anatomical liver resections, liver navigation is used to determine resection boundaries and to visualize vascular structures.
- Navigated resection is of interest in laparoscopic liver surgery because three-dimensional information on resection boundaries and critical structures is displayed during resection and can be accurately detected during surgery.
- In intraoperative thermal ablation, navigation technology enables the exact ablation of multiple tumors.
- Navigation is a fascinating future technology, as it can increase treatment accuracy, especially in minimally invasive liver surgery, enabling more complex and safe resection and ablation treatments.

Read the article (German only): https://www.springermedizin.de/navigierte-leberchirurgie/16129672
CAScination AG is an award-winning medical technology company dedicated to development, manufacturing and commercialization of innovations in computer-assisted and image-guided surgery. Our trailblazing navigation systems and surgical robots are designed to improve outcomes for patients undergoing surgical or interventional procedures and offer new perspectives to patients worldwide. Our CAS-One planning and navigation system is used to treat patients suffering from soft tissue cancer (e.g., liver cancer) by many hospitals across Europe, and we are developing further applications in a number of disease areas.

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