ORAL CONTRAST IN TRAUMA CT

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Abdominal trauma CT examinations are notoriously difficult to read. Solid organ injuries are highlighted with intravenous contrast, but hollow organ injuries and free intra- and retroperitoneal fluid are often very subtle and difficult to detect. Oral contrast material (OC) is helpful, delineating the intestinal and mesenteric anatomy and eventually show full thickness wall injury with extra-intestinal contrast leakage.

Is it potentially harmfull to use oral contrast? Several reports have stated that there is no increased risk of aspiration in trauma patients. Does the OC reach the small bowel or the colon? In most cases the contrast reaches the lower jejunum or upper ileum. Results from Vejle Hospital show that there is no risk of aspiration and that the contrast is reaching far down the intestinal canal WITHOUT any delay in the overall handling of the trauma patient.
Numerous reports are published dealing with bowel injuries. The incidence of this injury among blunt abdominal trauma patients ranges from 0,5 to 8,5%. This is quite amazing as the differences in incidence of solid organ injuries is substantially lower.

In solid organ injury everybody uses intravenous contrast, but OC is used by only 40-50% of trauma centers. Is there any correlation between the use of OC and the incidence of bowel & mesenteric injury.

OC directs the attention to the bowel and mesenteric region, and images of bowel and mesenteric injuries will show the importance of OC in order to read the examinations correctly. The different types of contrast material, pros & cons for their use are discussed. Passage data and pitfalls for the use of OC will be dealt with. We use OC in all trauma CT examinations. OC is administered as soon after admittance to the ER as possible.The patient drink the OC or get it by gastric tube. The tube is removed immediately after. We do the CT scan as fast as possible and do not wait. Our patients get 400 ml of tap water with 12-20ml of a 300mgI/ml water soluble contrast material. The results from a 2 year period are discussed.

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Numerous Trauma Centers use OC according to protocols