



EURO-NOTES 2008

Working Group 1

Suturing / Wall closure / Anastomotic devices

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- **The data**
- **The principles**
- **The tools**

The data

- Risk of closure problems and anastomotic leak is very important and must not be underestimated.
- Closure problems after transgastric approach probably between 0.5 and 2 % at best, even considering gastrotomy in healthy stomach is not a perforation



The data

- Closure problems after transvaginal approach seems to be minor, but some evidence of chronic pain, dyspareunia and loss of sensitivity (0.001 – 3 %)
- Closure problems after transanal/transcolonic approach can be higher (1-3% ??)



- The data
- **The principles**
- The tools



The principles

- Highest possible standard in GI-closure and anastomosis is a full-thickness suture
- Healing depends on technique, sufficient mobilisation of the tissue, tissue blood supply , healthy status of tissue



The principles

- Needs for good closure / anastomosis:
 - Good overview
 - Possibility for good apposition of tissue / bowel ends / stomach wall
 - Full thickness suture possible (rotation)
 - Stable platform
 - Easy removal and renewal of suture material
 - Optimal distances between the stitches
 - Sterile surrounding (discussed)



- The data
- The principles
- **The tools**



The tools

- Eagle Claw : complex to reload, only one arm, bulky
- NDO-Plicator: bulky, good for gastric closure
- Clips: easy to use, no full thickness, probably not enough
- T-Tag / Brace-bar: good to handle, probably sufficient for small holes, not applicable for anastomoses, moderate muscular apposition
- OTSC Clip Ovesco: good tool for small openings, experience experimental and inpatients good



The tools

- Flexible Stapler: very good function, too bulky for easy handling, must be thinner and still steerable, circular stapler excellent for anastomoses
- GI Prox: good tool for closure of limited openings

Platforms with full suturing capacity:

- Boston Direct Drive
- ENDO-Samurai
- Necessary functions for suturing small openings and full anastomoses
- Need as soon as possible



Conclusion

- Crucial step
- Surgical principles to be followed in general but could be slightly modified for NOTES
- Group not very confident on available instrumentation (maybe enough for small openings)
- Improvement in stapler and platform technology is needed