

Rationale on metachronous HIPEC after CRS

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Wed., 16:55 - 10+5

3 Concepts

- HIPEC after CRS in one operation
- Delayed HIPEC about 5 days after CRS
 - principal
 - Calculated (riskadapted)
- Delayed HIPEC 6 Months after CRS

Delay of Cytoreductive Surgery and Heated intraperitoneal Chemotherapy in Patients with Appendiceal Neoplasm



- HIPEC less than 6 Months early
- Longer than 6 Months delayed CRS/ HIPEC
- conclusion: d-CRS/ HIPEC does not improve Prognosis
- PMCA early 41 delayed 36
- PCI <20 46 17*
- Complete cytoreduction CC 88% 61%*
- Overall Survival OS 5J 54% 45%

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Feasibility of Delayed Hyperthermic intraperitoneal Chemotherapy in Case of unforeseen Complications



- -d CRS/ HIPEC 5 days after CRS 42 Patients
- Complication Major 22,5% minor 45 %
- Mortalität = 0

Mean number of organ resections	2.45
Mean number of intestinal resections	1.98
Mean number of anastomoses	1.16
Surgical reinterventions, n	7
Mean CRS duration	6 h 34 min
Mean HIPEC duration	3 h 6 min
Mean temperature during HIPEC, °C	41.5

Complications	n (n = 40)
Surgical complications	9 (22.5%)
Other need for intervention	4 (10%)
Bleeding	3 (7.5%)
Pancreatic leakage	1 (0.5%)
Perforation	1 (2.5%)
Toxicity: (WHO III–IV)	4 (10%)
Renal	2 (5%)
Cardiopulmonary	2 (5%)
Hematological	0 (0%)

D-HIPEC - possible advantages

- Feasible for organisation
- Planned second look
- Reduced operative stress at CRS
- Daily reevaluation after CRS
- → HIPEC can be cancelled if patients condition deteriorates
- Less systemic toxicity due to sealed inner wounds



D-HIPEC - possible disadvantages

- Further anaesthesia
- Adhesions
- → risk of bowel injury
- → irregular distribution

- Reduced penetration depth of chemotherapeutica due to fibrin film

Centre experience – patient population



CRS + HIPEC: n = 70 (since 2010)

Closed technique, 42° , 60min

One-step approach (O-HIPEC): n =45

Delayed HIPEC (D-HIPEC): n = 25

Mean 5 d after CRS

Reasons for delayed HIPEC

• Reduction of Risk	6
- Multivisceralresection	5
- Mult.Anastomosis?	1
• Organisation	19
• Nephrotoxicity	0
• Anästhesiologic Problems	0



centre experience – O-HIPEC vs. D-HIPEC

	O-HIPEC	D-HIPEC
Age (mean)	61y	61y
Duration prim. Surgery (mean)	397min	306min
Hospital stay (median)	21d	25d
PCI (median)	15	19
CC 0/1 (%)	64%	68%
Anastomosis (mean)	1,0	1,3
reoperation	29%	25%



Parameter during Cytooreduktion CRS for D-HIPEC ?

- Number of Anastomosis >3
- PCI
- Multivisceralresection
- Simultane Liverresection > 2 Segments
- Resection at the Urogenitalsystem Ureterresection
- Volume-Bloodsupply more than 4 EK
- need of Catecholamines

D-HIPEC laparoskopisch

- Laparoskopisch HIPEC 11
- PCI 16 mean
- Hospital stay 20 days mean
- Complication Abdominal wall hernia
- Reoperation 1
- Mortality 0

Conclusion 3 Concepts

- HIPEC after CRS in one Operation ✓
- Delayed HIPEC about 5 Days after CRS
 - principal
 - Calculated (riskadapted) laparoskopisch ✓
- Delayed HIPEC 6 Months after CRS



Vielen Dank!

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