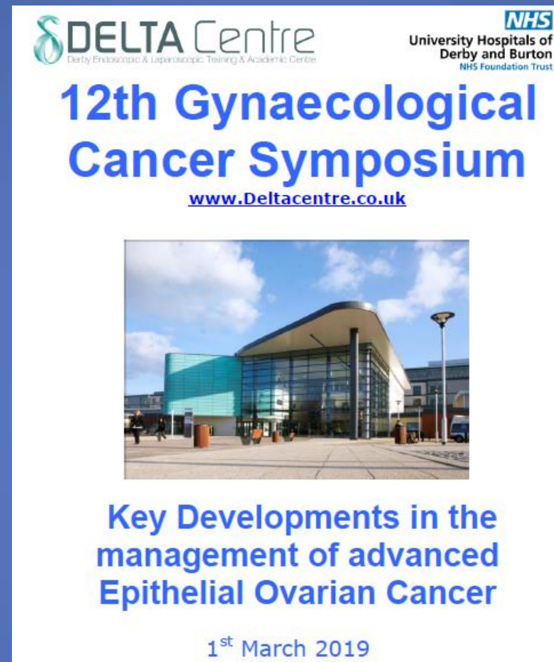
MINIMISING MORBIDITY IN MAXIMUM EFFORT ULTRARADICAL SURGERY (MES) FOR ADVANCED OVARIAN CANCER



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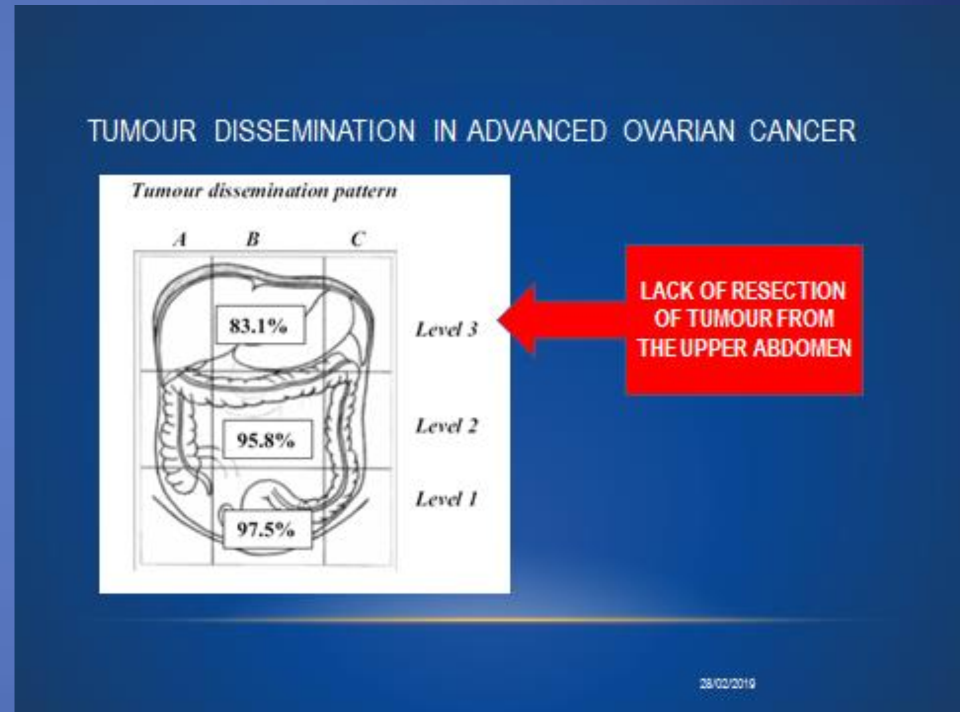
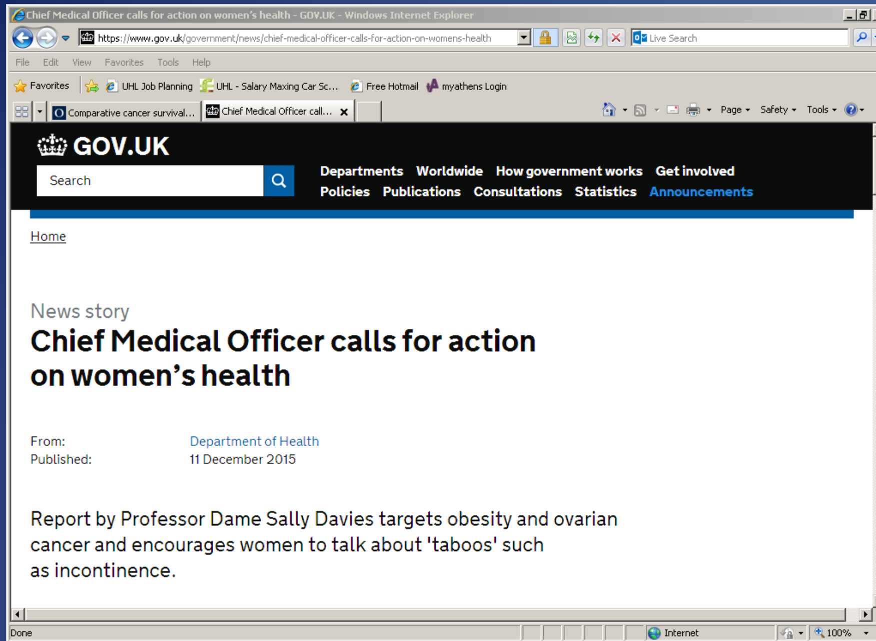
FACTS

- Primary/Interval
- Complete resection (R0)
  - ultra-radical/multi-visceral resection
- Upper abdominal surgery
- Different skill set, longer training, ?multidisciplinary
- Higher morbidity & mortality
- No RCT supporting ultra-radical





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News story

Chief Medical Officer calls for action on women's health

From: Department of Health
Published: 11 December 2015

Report by Professor Dame Sally Davies targets obesity and ovarian cancer and encourages women to talk about 'taboos' such as incontinence.

- Survival in England and the UK is among the lowest in the OECD nations
- Highlights the benefits of better surgery - often meaning longer operating times - for ovarian cancer
- Training in specialised surgical skills

SURGERY FOR ADVANCED EPITHELIAL OVARIAN CANCER

- Each 10% rise in maximum cytoreduction = 5.5% rise in median survival

- Implementing aggressive surgical approach (switch in approach)
  - a significant increase in the complete debulking rate
  - improved OS

Journal of Clinical Oncology, Vol 35, No 6 (February 20), 2017: pp 587-590

MAXIMUM EFFORT (R0)

CASE SELECTION

- Imaging/MDT
- ?Laparoscopy/unresectable disease
- Age/Frailty/Co-morbidities/Optimisation
  - High Risk Anaesthetic Clinic
- Informed choice
- CNS input
- HDU
- Laparoscopy

LEICESTER SURGICAL TEAM

- Gynaecological oncology surgeon (lead/responsible cons)
- HPB surgeon
- Colorectal surgeon
- Dedicated anaesthetic consultant
- Postoperative care – multidisciplinary

University Hospitals of Leicester NHS

Caring at its best

Multidisciplinary Maximum Effort Cyto-reductive Surgery (MES) for Advanced Ovarian Cancer in Leicester: Outcomes

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University Hospitals of Leicester NHS trust

Introduction:

In the UK 7400 women are affected by ovarian cancer every year, however, only 36.2% survive for five years. The UK comes 45th out of 59 in the global table. Some countries achieve nearly double this survival rate[1]. Poor quality surgery offered and the lack of adequate upper abdominal debulking has been highlighted as part of the problem[2]. Implementing an aggressive but safe surgical approach (switch in approach) has shown significant increase in the complete debulking rate and improvement in the overall survival[3].

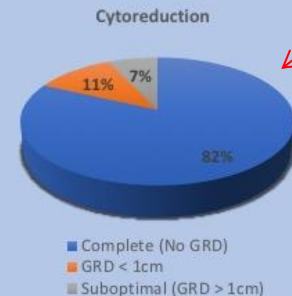
In Leicester we have implemented a structured multidisciplinary surgical approach to maximum effort cytoreductive surgery for our patients with advanced ovarian cancer. The surgical team includes gynaecological oncologists, hepatobiliary / pancreatic surgeons, colorectal surgeons and the anaesthetic / HDU / ITU team. This multi-disciplinary approach has helped us develop and maintain safe and effective skills in extensive peritonectomies, complex bowel surgery and upper abdominal surgery in addition to optimising the intraoperative critical decision making process and improving peri-operative outcomes in patients with advanced ovarian cancer undergoing primary or interval debulking surgery.

Methods:

A retrospective evaluation of a prospectively collected clinical data was performed to assess the surgical outcomes and morbidity for all consecutive patients who underwent extensive cyto-reductive surgery for advanced ovarian cancer, between 1st January 2016 and 31 March 2018. All patients who had ultra-radical surgery as defined by the National Institute of Clinical Excellence (NICE), were included. All operations were performed through a midline laparotomy. Patients were provisionally selected from the multidisciplinary team meeting and then assessed by the gynaecology oncology team in the clinic. After extensive discussions regarding potential peri-operative complications with the patient, an informed consent was taken prior to the day of surgery. Patients with major comorbidities and/or advanced age were routinely admitted to the HDU/ITU postoperatively. The postoperative complications are ranked using the Clavien-Dindo classification.

Results:

Between January 2016 and March 2018, 27 consecutive women with advanced ovarian cancer had MES. Median age was 66 (range 27-86). 13 patients (48%) had primary debulking surgery and 14 (52%) had interval debulking surgery. For those who underwent interval debulking surgery, the median number of neoadjuvant chemotherapy cycles were 4 (range 3-6). The majority of the patients were stage IIIC (67%) and most were high grade serous histology (85%). The median surgical duration is 295 minutes. Complete cytoreduction with no gross residual disease achieved in 82% of the patients, 11% had gross residual disease < 1cm and only 7% had suboptimal cytoreduction. Median blood loss was 800mls. Median length of hospital stay was 9 days. One year mortality rate was 11% (n=3) and one patient died in the first 28 days after surgery.



Only one patient (4%) had intra-operative complication of hypotension and tachycardia. The postoperative complications are presented in table (1) using the Clavien-Dindo classification.

Post-operative complications according to The Clavien-Dindo classification

Grade	% (n)
No Complications	22% (n=6)
Grade I	33% (n=9)
Grade II	41% (n=11)
Grade III	0
Grade IV	0
Grade V	4% (n=1)

Conclusion:

Our data favours a multidisciplinary structured maximum effort cytoreductive surgery service for advanced ovarian cancer and this could be a more effective approach than a unidisciplinary approach. The coordinated multidisciplinary approach and formation of a dedicated team with key individuals appears to minimise intra-operative and post-operative morbidity. This approach also enables the development and maintenance of interdisciplinary surgical skills and improves the quality of surgery.

1. https://www.pressreader.com/uk/daily-mail/20180131/281681140315276
2. Barton DPJ, Adib T, Butler J (2013) Surgical practice of UK gynaecological oncologists in the treatment of primary advanced epithelial ovarian cancer (PAEOC): a questionnaire survey. Gynecol Oncol 131:347-351
3. Journal of Clinical Oncology, Vol 35, No 6 (February 20), 2017: pp 587-590

LEICESTER DATA (1/1/16 – 22/2/19)

TOTAL OVARIAN CANCERS
(n=202)

Surgery^
(n=132) **65%**

No surgery
(n=70) **35%**

MES*
(N=39)

^Staging/Standard(IDS/PDS)/MES/Palliative
*Stage 3C/4; Procedures; 30%

MES (N=39)

- PDS =19 (49%)
- IDS = 18
- SEC. CYT. = 2
- 87% High Grade Serous

MES ULTRA-RADICAL PROCEDURES

- Diaphragmatic stripping = 15
- Extensive peritonectomy = 22
- Multiple bowel resections = 20
- Liver resection = 7
- Partial gastrectomy = 1
- Cholecystectomy = 1
- Splenectomy = 3
- Para-aortic nodal debulking = 2

RESULTS of MES (n= 39)

- Median age 65 yrs (27-86)
- Median duration of surgery = 297 mins (188-500)
- Cytoreduction
  - No gross residual (R0) = 34 (87%)
  - >/= R1 = 5 (13%)
- Median estimated blood loss = 800 mls (200-4000)
- ITU/HDU admission = 39
- Median length of stay = 9 days (4-29)

POSTOPERATIVE MORBIDITY (n= 39) CLAVIEN DINDO CLASSIFICATION

- </= Grade I 19
- Grade II 17
- Grade III 1
- Grade IV 1
- Grade V 1*

*died within 72 hours

SURVIVAL (N=39)

- 28 alive
- Range - 0-37 months
- 1 year survival – 56%*
- Data not mature

*Patients operated until 16/2/18

DISCUSSION

- Multidisciplinary surgical approach ?better
- Selection = resection rate
- Number of anastomoses
- Imaging/laparoscopy
- PDS/IDS
- Await TRUST trial results