There have been no randomised controlled studies investigating the value of pulmonary metastatectomy and a recent systematic review was unable to draw inferences. The optimal management of this patient group remains unclear.
**Methods:** A retrospective review of cases presenting with lung metastases from a colorectal primary and treated in a single centre by pulmonary resection, between the years 1991 and 2009, was performed.
**Results:** 76 patients were identified. The average age at resection was 61 years. 66% of patients were male, 34% female.
29 patients initially presented with Dukes C1 cancers, only 7 presented with synchronous metastases. Prior to lung resection 12 of the patients had undergone liver resection. 13 patients underwent more than one lung resection, with 10 patients undergoing 2 metastatectomies and 3 patients having 3 resections in total.
The median time from diagnosis of the colorectal primary to lung resection was 36 months. Five year survival from diagnosis of the primary cancer was 70%. Following diagnosis of lung metastases and metastatectomy, two year survival was 82% and 5 year survival was 30%.
Following lung resection 20% of patients received adjuvant chemotherapy. 29% of patients in the series received chemotherapy in the palliative setting following lung resection. i.e. on disease progression following metastectomy.
**Conclusions:** Our retrospective review has shown an improvement in five year survival in patients who underwent pulmonary resection compared to that expected from palliative chemotherapy. Whilst the evidence from this population is clearly in favour of surgery a randomised control trial needs to be carried out to provide more robust evidence. Lung resection is associated with a 2−4% risk of mortality depending on the procedure undertaken. For this reason prognostic indicators would need to be examined to help design a comprehensive referral guide for patients presenting with pulmonary metastases to ensure that only patients who would clearly benefit from metastatectomy undergo surgery.

**6040** POSTER

**Liver Only Metastatic Disease in Patients With Metastatic Colorectal Cancer (mCRC), Impact of Surgery and Chemotherapy**

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**Background:** Metastatectomy in colorectal cancer is now a standard of care where resection is thought to offer a chance of cure. Conversion chemotherapy has increased the population who are suitable for surgery.
**Methods:** We analysed the outcomes for patients with liver only metastatic involvement from the SA Metastatic Colorectal Cancer Database with aim to assess impact of chemotherapy on liver resection & outcome in comparison to liver resection only. Patients who had no therapy or non surgical liver interventions were excluded for this analysis.
**Results:** Of 1908 patients with met CRC, 687 (36%) have liver only disease. Of these 69.3% had chemotherapy only, 10.8% had liver surgery alone and 19.9% both chemotherapy & surgery. Patient characteristics are shown in the table.

| Total pts (n = 685) | Resection (R) only n = 77** | Chemotherapy (C) n = 476 | Resection and chemotherapy (RC) n = 132** |
|---|---|---|---|
| Male | 55 (71.4%) | 274 (57.6%) | 88 (66.7%) |
| Female | 22 (28.6%) | 202 (42.2%) | 44 (33.3%) |
| Median Age (yrs) | 72.4 (32.8–92.9) | 75.2 (25.6–99.0) | 66.8 (35.6–86.4) |
| Rectal | 21 (27.3%) | 88 (18.5%) | 89 (67.4%) |
| Synchronous* | 26 (33.8%) | 385 (80.9%) | 89 (67.4%) |
| Metachronous* | 51 (66.2%) | 91 (19.1%) | 43 (32.6%) |
| Histological grade: | | | |
| Well differentiated | 2 (2.6%) | 7 (1.5%) | 1 (0.8%) |
| Moderately differentiated | 66 (85.7%) | 283 (59.5%) | 109 (82.6%) |
| Poorly differentiated | 8 (10.4%) | 93 (19.5%) | 18 (13.6%) |
| Undifferentiated/Anaplastic | 0 | 1 (0.2%) | 0 |
| Not determined/Not stated | 1 (1.3%) | 92 (19.3%) | 4 (3.0%) |
| Kras: mutant | 1 | 10 | 8 |
| Kras: wild type | 0 | 26 | 2 |
| Median OS (months) | 45.6 | 11 | Not reached |

*2 unknown stage at diagnosis. **8 liver resection surgeries abandoned.

In RC group 33.3% (44/132) patients received chemotherapy preoperatively, 37.2% (49/132) post operatively and 29.5% (39/132) peri-operatively. Oxaliplatin based doublet chemotherapy was most common chemotherapy used in all 3 subgroups − 91% ( 40/44), 73.4% (36/49) & 87% (34/39) respectively. In peri-operative group who commenced FOLFOX, 41% (14/34) changed chemotherapy regimen post operatively. For R & RC resections details are as follows; R0 66% (51/77) & 76% (100/132) and R1 7.8% (6/77) & 6% (8/132) respectively. For R 19 of 77 have relapsed and 14 had chemotherapy (FOLFOX 6, Capecitabine 5 & FOLFIRI 3), 4 had re-resection & 1 both re-resection & chemotherapy. In RC 32 of 132 have had recurrence. 17 had further chemotherapy, 7 had re-resection and 8 had both. The 1, 2 and 3 year survivals are R 94.4%, 84.3%, 73.3%, C 47.7%, 27.9%, 9.15%, RC 98.5%, 88.9%, 73.8%.
**Conclusions:** Liver only metastatic disease is common in colorectal cancer and patients undergoing liver resection have improved long term survival. Survival appears greatest if there is a combined approach of chemotherapy and hepatic resection Patients undergoing resection alone are older, more likely to have synchronous disease and have a colon primary. Patients not suitable for surgery with liver only disease appear to have a poor prognosis.

**6041** POSTER

**Mutation Pattern of KRas and BRAF Oncogenes and Their Comparison With Clinicopathological Features in Patients With Colorectal Cancer**

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**Background:** Activating missense mutations of *KRAS* and *BRAF* genes have been implicated in colorectal carcinogenesis. The aim was to identify incidence of *KRAS* and *BRAF* gene mutations among Croatian examinees diagnosed with colorectal cancer (CRC) and to assess whether they are linked with clinicopathological features.
**Material and Methods:** Tumour DNA was isolated from formalin-fixed paraffin-embedded primary tumour tissue blocks. *KRAS* mutations were evaluated using quantitative real-time PCR (exon 2, codons 12 and 13) and *BRAF* mutations (exon 15) were analyzed using real-time PCR by fluorescence melting curve analysis in 54 patients (23 females and 34 males).
**Results:** *KRAS* gene mutations are detected in 18 samples (33.3%). There were 10 transversions (G > T) and 8 transitions (G > A) out of which sixteen mutations affected codon 12 and two affected codon 13. The most frequent *KRAS* mutation is Gly12Val (GGT > GTT) detected in 9 samples (50%). Five patients had Gly12Asp (GGT > GAT) mutation, two patients Gly13Asp (GGC > GAC), while of the remaining two patients one had Gly12Ser (GGT > AGT) and the other one had Gly12Cys (GGT > TGT). Consistent with literature reports, the majority of *KRAS* mutations were found in codon 12, with smaller number of nucleotide substitutions in codon 13. The majority of mutations were base-pair transversions. Statistical analysis revealed significant association (p = 0.04) between *KRAS* mutation and Dukes' stage with least frequency in Dukes'A. We found no correlation between mutations and other clinicopathological features. *BRAF* gene mutation Val600Glu was detected in 4 samples (7.4%). All mutations were detected in males in tumours classified as Dukes'C. Three out of four *BRAF* positive samples (75%) were well to moderate differentiated tumours bigger than 5 cm. We found no correlation between *BRAF* mutations and clinicopathological features.
**Conclusions:** The data about *KRAS* and *BRAF* mutational status shows that the incidence of *KRAS* and *BRAF* mutations is within generally valid limits. Prospective studies are to be continued in order to determine whether these mutations play a role in the progression of CRC. Because current treatments for patients with CRC include several targeted monoclonal antibodies, the data shall also be correlated with the survival rate. The final result must be a proper selection of the correct therapy which is critical for improving clinical outcomes, unnecessary toxicities, and financial cost.

**6042** POSTER

**Is More Psychosexual Guidance Warranted During and After the Treatment for Rectal Cancer? − a Pilot Study**

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**Background:** To compare patients with Locally Advanced Rectal Cancer (LARC) with patients treated with Total Mesorectal Excision (TME) with regard to: (i) the prevalence of erectile dysfunction, ejaculation problems, dry vagina, and dyspareunia; (ii) whether aids are used to enhance erectile function and improve lubrication; and (iii) sexual functioning and sexual enjoyment.
**Material and Methods:** Patients treated for LARC (n = 263, of which 164 men) and patients treated with TME (n = 63, of which 42 men)