

شبكة المعلومات الجامعية







شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

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بالرسالة صفحات لم ترد بالإصل

Cytogenetic Aberrations Detected By Fluorescence In Situ Hybridization (FISH) And Flow Cytometric Analysis Of Colorectal Carcinoma

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THESIS

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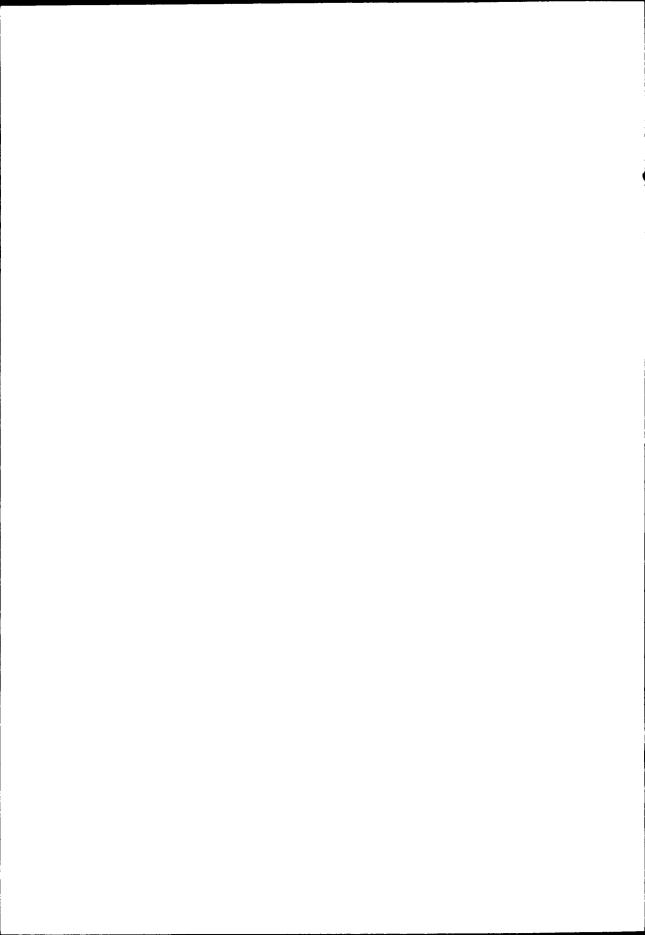
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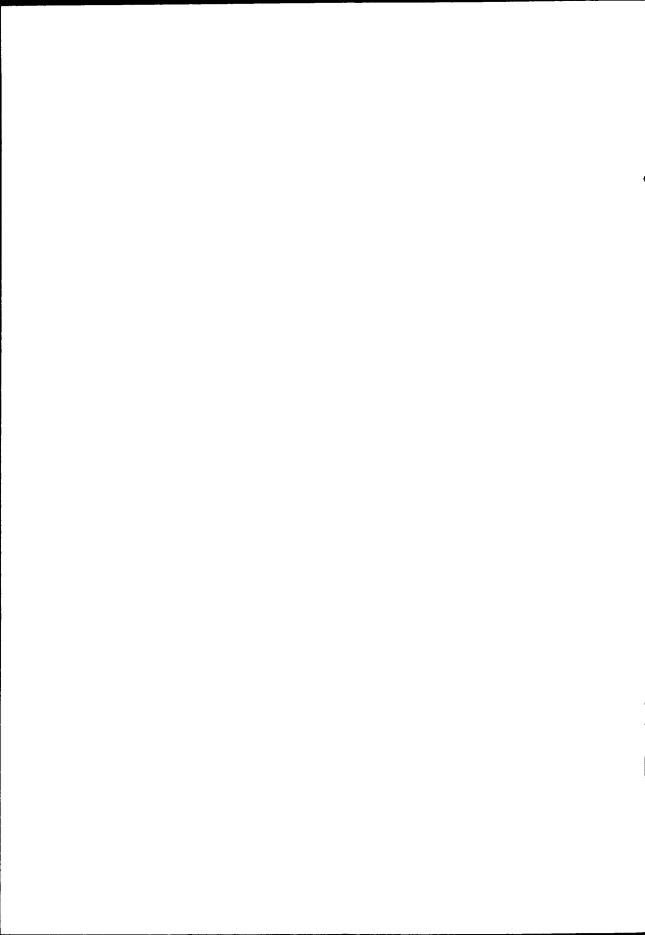


ABSTRACT

This study was performed to detect DNA content and S phase fraction as measured by FCM in CRC cases and to search for numerical chromosomal aberrations of chromosomes 7, 17 & 18 using FISH and correlate the above mentioned FCM and FISH findings with clinicopathological parameters of prognosis in CRC cases.

The average age of CRC cases was 51.7 years, 70% were males, most cases were in the distal colon & 70 % of cases were more than 5 cm. 93.3 % were adenocarcinoma while 6.7 % were mucinous adenocarcinoma, 70 % were GII, 30 % were GIII, 70 % were Dukes C, 20 % Dukes B & 10 % Dukes D. 80 % showed metastatic LN deposits with 56.7 % having > 3LNs involvement. 56.7 % of malignant cases were aneuploid, 52.9 % hypotetraploid range, 23.5% in the near diploid & 11.8 % for each of triploid & tetraploid ranges. SPF had a mean value of 15.59% for CRC cases ranging from 3.3 % to 37.8 %. Aneuploidy correlated with tumor size, grade, LN state and there was a higher tendency for aneuploid cases to be of metastatic Dukes C/D and to be distally located. Cases with high SPF tended to be more in distal tumors, metastatic Dukes C/D & in cases with > 3 LNs and correlated significantly with tumor size. Aneusomy for at least one of the investigated chromosomes in malignant cases were in 63.3 %, the % of aneusomy for chromosomes 7, 17 & 18 were 53.3 %, 26.7% & 43.3% respectively. Statistically significant correlation existed between chromosomes 7, 17, 18 & LN deposits, Chromosomes 7, 17 aneusomies & malignant tumor size & grade with high tendency of metastatic Dukes C/D to harbor high number of aneusomies. Statistically significant correlation existed between ploidy as detected by FCM and chromosomal aneusomies as detected by FISH and between chromosomes 7, 17 & SPF. The adenoma cases had a mean age of 41.2 years, 8 cases were males, 6 cases were in the proximal colon & 4 cases in the distal colon with a mean size of 1.8 cm. 9 cases were tubular adenomas& one was tubulovillous adenoma with high grade dysplasia. All adenoma cases were diploid with one case having high SPF and were all disomic for investigated chromosomes except for a monosomy 18 in one case.

Key words: Colorectal carcinoma- Flowcytometry- Fluorescence in situ hybridization



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