HBP SURGERY WEEK *2023*

MARCH 23 THU - 25 SAT, 2023 | BEXCO, BUSAN, KOREA www.khbps.org





EP 120

Prevalence Of K-RAS Mutation In Carcinoma Gallbladder-A Cross-sectional Observational Analysis

<u>Thakur Deen YADAV*</u>, Avinash Chandra MISHRA, Vikas GUPTA, Harjeet SINGH, Naga Santosh IRRINKI, Debajyoti CHATTERJEE, Pariksha GUPTA, Anupam LAL, Arnab PAL, Yashwant KUMAR

Dept Of Surgical Gastroenterology, Postgraduate Institute Of Medical Education And Research , Chandigarh, INDIA

Background : Prevalence of gallbladder cancer(GBC) is characterized by marked geographical and ethnic variation. The incidence of GBC in India is 10-22 per lakh population. Overall prognosis is poor due to lack of specific symptoms and delayed presentation. Diagnosis is made on transabdominal USG findings which is confirmed on CECT abdomen. Although numbers of biomarkers(CEA, CA19-9, CA50, CA15-3, CA242, K-RAS) with potential role in the early detection of GBC have been established, it is not easy to point out any particular biomarker for the routine clinical setting. K-RAS is a proto-oncogene that acts as a molecular on-off switch; it recruits and activates growth factors and cell signalling receptors. It has been in many GI malignancies in treatment planning however its role in GBC is not well studied. So, we planned to study the prevalence of K-RAS mutation in GBC, its prognostic value, and its correlation with various clinicopathological variables.

Methods : K-RAS mutation analysis was done in FNAC, and histopathology specimens in diagnosed GBC patients. DNA was extracted from the formalin-fixed paraffin-embedded representative tumour blocks using a commercially available DNA extraction kit. K-RAS evaluation was done by real-time PCR. Sixteen hotspot mutations in the K-RAS gene on exons 2, 3 and 4 were screened. Results were interpreted qualitatively as positive or negative.

Results : A total of 51 patients enrolled in our study, from which 21 were excluded. Thirty patients with diagnosis of GBC were studied. Out of which 19(63.3%) were female, and 11(36.%) were male. The mean age of presentation was 52 years. Twenty-seven (90%) patients presented with complaints of pain in the abdomen. Mean duration of symptom was eight months with a standard deviation of 8.9. In 16 patients samples were taken resected specimens and in 14 from FNAC. In only two samples of FNAC, K-RAS mutations were detected(02/14). In 16, HPR samples, K- RAS mutations were not detected (0/16). One of the K- RAS positive patient had metastatic disease and other had locally advanced disease. In our study, the positivity rate was 6.6%. Both these patients have died in due course of chemotherapy

Conclusions : Our study has not any significant role of K -RAS in management of GBC. Positivity was only 06.6%. Our sample size was very small so no conclusion can be drawn from this study. We could only say that there is a trend towards K RAS not very useful in GBC management however a study with bigger sample size in needed in future.

Corresponding Author : Thakur Deen YADAV (tdyadav@gmail.com)