Name of Patient	: Mahesh Kumar	**Date**	: 23/01/2024
Age/Gender	: 44/M	**Barcode**	: 44240000074

MMR

Mismatch Repair Immunohistochemistry

Specimen Information

Gastric Biopsy (S-72/2024)

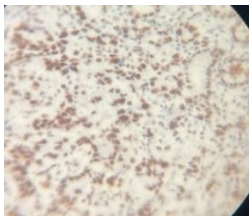
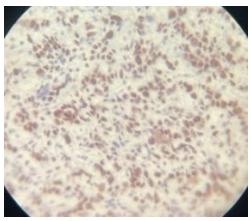
Clinical History

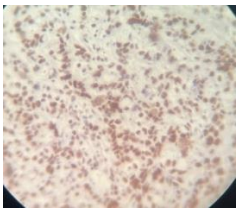
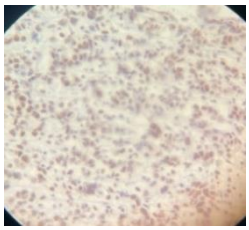
Poorly differentiated adenocarcinomas

Methodology

Immunohistochemistry

Immunohistochemistry Studies

Markers (Clones)	Results	Image
MSH-6 (EP49)	Intact Nuclear expression	
MSH-2 (FE11)	Intact Nuclear expression	

MLH-1 (ES05)	Intact Nuclear expression	
PMS-2 (EP51)	Intact Nuclear expression	

IHC Interpretation and Result

- Loss of nuclear expression of one or more MMR proteins: deficient mismatch repair (high probability of MSI-H)
- Loss of nuclear expression of MSH2 and MSH6: high probability of Lynch syndrome (sequencing and/or large deletion/duplication testing of germline MSH2 may be indicated, and, if negative, sequencing and/or large deletion/duplication testing of germline MSH6 may be indicated).

#There are exceptions to the above IHC interpretation. These results should not be considered in isolation and clinical correlation with genetic counselling is recommended to assess the need for germline testing.

Comments

1. Several studies have shown that microsatellite stable (MSS) tumours have a less favorable prognosis and are more prone to lymph node and systemic metastasis when compared with MSI tumours. Also, current data shows that microsatellite stable(MSS) tumours may be less responsive to irinotecan than MSI tumours. However, MSS tumours are known to respond better to 5FU therapy than MSI tumours.
2. A normal (positive) result does not completely rule out Lynch Syndrome. Based on age of onset and family history, genetic counseling to consider additional tumor analysis, including microsatellite instability (MSI), DNA analysis, and follow-up may be warranted. Clinical correlation is recommended.
3. Pembrolizumab (Keytruda®) was approved by the FDA for adult and pediatric patients with metastatic or unresectable solid tumors that are either microsatellite instability-high (MSI-H) OR mismatch repair deficient (dMMR) that have progressed following prior treatment.

Reviewed By

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