



Supplementary material

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Supplement to: Du Q, Kam TY, Yeung MW. Clinical implications of Erb-B2 receptor tyrosine kinase 2 S310 mutations in non–small-cell lung cancer: two case reports. Hong Kong J Radiol. 2024 Dec;27(4):e242-7 | Epub 3 Dec 2024. <https://doi.org/10.12809/hkjr2417806>.

Supplementary Table. Review of Case 1 and Case 2.

	Age/Sex	Smoking status	Medical history	Histology	Molecular test result	Summary of systemic treatment	Outcome
Case 1	65/Male	Non-smoker	<p>1. Intrahepatic cholangiocarcinoma, pT1 cN0M0, R0 liver resection in February 2020</p> <p>2. Right upper lobe lung adenocarcinoma, cT1bN0M0, SBRT 55 Gy/5fr in February 2020. Follow-up CT in January 2022 showed remission in both diseases</p> <p>3. Chronic hepatitis B on entecavir</p>	Adenocarcinoma	1. Tissue NGS at diagnosis: ERBB2 S310F	<p>1st-line: Pemetrexed/carboplatin/pembrolizumab for six cycles, followed by maintenance pemetrexed/pembrolizumab for three cycles</p> <p>2nd-line: T-DXd for four cycles</p> <p>3rd-line: plan docetaxel</p>	<p>1st-line: iUPD of lymph nodes and bone metastasis by PET-CT after cycle 4; PR by PET-CT after cycle 6; PD of lymph nodes and bone metastases by PET-CT after cycle 9</p> <p>2nd-line: PD of bone metastases by PET-CT after cycle 4</p>
Case 2	79/Male	Non-smoker	Nil	Adenosquamous carcinoma	<p>1. Tissue conventional PCR at diagnosis: EGFR L858R</p> <p>2. Liquid NGS on progression: EGFR L858R and TP53</p>	<p>1st-line: EGFR TKIs for 4 months</p> <p>2nd-line: paclitaxel/carboplatin for one cycle</p> <p>3rd-line: osimertinib/tepotinib for 3 months</p> <p>4th-line: T-DXd for two cycles</p>	<p>1st-line: initial response with decrease in CEA level, followed by mixed response in the liver and bone with new emerging metastases by PET-CT</p>

Age/Sex	Smoking status	Medical history	Histology	Molecular test result	Summary of systemic treatment	Outcome
				3. Tissue conventional PCR on progression: EGFR L858R 4. Tissue NGS on progression: EGFR L858R, <i>MET</i> amplification and ERBB2 S310Y		after 4 months of EGFR TKIs 2nd-line: poor tolerance 3rd-line: initial decrease in CEA level, followed by a rebound and PD of lung, pleural, liver and bone metastases by PET-CT after 3 months of dual EGFR-MET TKIs 4th-line: CEA level downtrends but PD of liver metastasis by PET-CT after cycle 2 Patient deceased

Abbreviations: CEA = carcinoembryonic antigen; CT = computed tomography; EGFR = epidermal growth factor receptor; iUPD = immune unconfirmed progressive disease; NGS = next-generation sequencing; PCR = polymerase chain reaction; PD = progressive disease; PET = positron emission tomography; PR = partial response; SBRT = stereotactic body radiation therapy; T-DXd = trastuzumab deruxtecan; TKI = tyrosine kinase inhibitor.