

7. Kongres Hrvatskog
torakalnog društva

7th Congress of Croatian
Thoracic Society

TORAKS

2017

Hotel Westin Zagreb

26. - 29. TRAVANJ / APRIL



SYNCHRONOUS MULTIPLE PRIMARY LUNG CANCERS - A REPORT OF TWO CASES

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INTRODUCTION: Multiple primary lung cancers (MPLC) are increasingly recognized in clinical practice due to improvement in diagnostic procedures. These tumours are considered synchronous if diagnosed simultaneously. Here we present cases of two patients with bilateral synchronous MPLC who were treated surgically in curative intent.

CASE REPORT: First patient was 62-year old male with history of heavy smoking who presented with haemoptysis. Chest X-ray and CT scans revealed lower-right-lobe pulmonary infiltrate. Endoluminal bleeding mass

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was visualised in lower right bronchus during bronchoscopic exam, but there was also an area of changed, spontaneously-bleeding mucosa in upper left bronchus. Cytology specimens were obtained separately and squamous-cell carcinomas were diagnosed on both sides. Since the tumours fulfilled clinical criteria for two separate primaries, the patient was referred to thoracic surgeon. First operative procedure of right inferior lobectomy with mediastinal lymphadenectomy was performed on the side that was more advanced according to radiologic findings. The patient underwent left superior lobectomy and complete mediastinal lymphadenectomy 12 weeks after first resection, following thorough cardiopulmonary assessment and PET-CT scans to confirm the absence of distant spread. Cancers were staged pT2aN0 on both sides. Since there were no signs of visceral pleura or lymphovascular invasion, adjuvant treatment was not indicated. This patient is still under follow-up 19 months after second resection.

The other patient was also a heavy-smoking male who presented with cough and radiologic finding of upper-right-lobe infiltrate. However, an area of vulnerable and thickened mucosa of the secondary carina on the left side was visualised by bronchoscopy, with cytological evidence of poorly differentiated, probably squamous-cell carcinoma. The specimens of the right-upper lobe infiltrate were obtained by transthoracic biopsy under CT guidance and adenocarcinoma was established on this side. The patient underwent upper right lobectomy with mediastinal lymphadenectomy (pT2aN0). One month after resection, this patient is evaluated by multidisciplinary team for the most appropriate treatment modality of the left-sided cancer which is without any radiologic substrate.

CONCLUSION: When the cancers are of different histology, they can easily be argued as multiple primaries. However, in cases of the same histology, cancers should be considered MPLC if the tumors are physically distinct, with no mediastinal lymph-node involvement and no extrathoracic spread, as in our first patient. It is important to distinguish bilateral multiple primary lung cancers from solitary intrapulmonary metastasis, since the therapeutic approach and prognosis are substantially different.