Study on relationship between blood supply from pulmonary artery and pathological characteristics of patients with primary bronchogenic carcinoma  ZHANG Yongkui, LE Hanbo, CHEN Zhiyun, WANG Chaoye, ZHANG Binjie, People's Hospital of Zhoushan, Zhoushan, Zhejiang 316004, P. R. China

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【Abstract】 Background and objective  At present, it has been known that the bronchogenic artery participates in the blood supply of primary bronchogenic carcinoma, but there is controversy about the blood supply from pulmonary artery in primary bronchogenic carcinoma. The aim of this study is to assess the relationship between the blood supply from pulmonary artery and pathological characteristics of patients with primary bronchogenic carcinoma. Methods  The pulmonary arteries in 43 surgical samples of bronchogenic carcinoma were marked, and then the iopromide was used to selective pulmonary arteriography in digital subtraction angiography (DSA). The relationship between tumor with blood supply from pulmonary artery and the pathologic characteristics was observed. Results  There were 34 samples with blood supply from pulmonary artery (79.07%), and 9 samples without blood supply from pulmonary artery (20.93%). The development rate of peripheral lung cancer (100.00%) was significantly higher than that of central lung cancer (64.00%) (P<0.01). The development rate of squamous cell carcinoma (91.30%) was remarkably higher than that of adenocarcinoma (61.11%) (P<0.05). The development rate of poorly differentiated lung cancer (95.00%) was remarkably higher than that of well and moderately differentiated lung cancer (65.22%) (P<0.05). There was a positive relationship between the tumor size and the development rate (P<0.05). Conclusion  In primary bronchogenic carcinoma, the pulmonary artery blood supply exists in most of tumors. There is relationship between the blood supply from pulmonary artery and general type, histopathology, cell differentiation and tumor size of lung cancer. The blood supply from pulmonary artery doesn’t relate to tumor stage.

【Key words】 Bronchogenic carcinoma  Pulmonary artery  Blood supply  Pathology
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<table>
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<th>(\chi^2) value</th>
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<td>20</td>
<td>14</td>
<td>5</td>
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<td>Poorly</td>
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<td>Size of neoplasm</td>
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<tr>
<td>&lt;3 cm</td>
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<td>13</td>
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<td>3～5 cm</td>
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<td>13</td>
<td>7</td>
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<td>&gt;5 cm</td>
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<td>6</td>
<td>5</td>
<td>1</td>
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<td>11</td>
<td>7</td>
<td>3</td>
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<tr>
<td>III</td>
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<td>10</td>
<td>8</td>
<td>2</td>
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</table>

Tab 1 The relationship between the development of neoplasm and clinic type, histopathology, differentiated degree, size of neoplasm and clinic stage of primary bronchogenic carcinoma.
2.5 肿瘤不显影情况分析

在不显影的例子中，肿瘤均为中央型且位于叶支气管以上。

其中肿瘤直径小于 $Q$ 例，者 $E$ 例。

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期 $\# + \# $ 例，期 $\# = \#$ 例。

图 8 成像

肿瘤完全显影

显影分布较均匀

肺动脉进入肿瘤变细

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肿瘤完全显影

显影分布较均匀

肺动脉平稳进入肿瘤

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肺内已有的血管，肺动脉参与供血的机会就越多。从而与肺动脉交通有关。从肿瘤的大小来看，肿瘤越大，低分化癌显影率，表明肿瘤越大，差异有显著性。从病理类型来看，肺泡型，这类肺癌的血管为肺动脉参与供血。从肿瘤的大小来看，原发肿瘤直径在3～5 cm，(63, 65%)，3 cm，(61, 54%)，3～5 cm，(83, 33%)。从(B-T)显像，肺动脉参与供血活体灌注观察，显著提示鳞癌的肺动脉供血越丰富。