By means of a chest radiographic examination, not only pulmonary disease but also abnormalities of the chest wall, heart, mediastinum and pleura can be evaluated. This technique has been widely used because of its excellent results and convenient procedure\(^1\). Approximately 300 chest radiographs of patients with oral and maxillofacial conditions are performed in our department every month. Since it is the responsibility of radiologists to interpret chest radiographs accurately, it is necessary for all physicians to know the appropriate indications for such an examination.

**Metastatic Disease**

The lung is probably the common site of metastatic tumors from malignancies not only of the oral and maxillofacial region but also of most other sites. Such metastases influence the treatment and prognosis of the disease process. Chest radiographs are the most convenient and effective method of detecting pulmonary metastases\(^2\).

Radiographically, there are many different manifestations of metastatic tumors within the thorax. A tumor may spread to the lung parenchyma, pleura and chest wall, mediastinum, pericardium, and thoracic bony structures. The radiographic pattern of pulmonary metastatic tumors may present as small nodules, globular lesions, miliary fine nodular lesions or a reticular pattern. Such a tumor may grow in one site as a solitary nodule (Figure 1) or in many sites as multiple nodules. It may be on one side or both sides of the lung field (Figure 2).

Most pulmonary metastases can be detected by conventional radiographic examination, but in the early stage, metastatic foci smaller than 6mm in diameter cannot be seen clearly with conventional chest radiographs but can be detected by computed tomography (CT). There are several
Conventional chest radiograph showing a solitary pulmonary metastasis present in the middle of the left lung.

Conventional chest radiograph showing multiple well-defined nodular metastases present in both lungs.

CT scan showing a 3 mm² nodule (arrow) found near the right hilum, which was not detected on conventional chest radiograph.

CT scan showing a 6 mm² nodule (arrow) found just lateral to the left pleura, that was not detected on conventional radiograph.

Unfavorable locations in which lesions may be masked in a conventional chest radiograph, such as: (1) lung apices, (2) the perihilar region (Figure 3), (3) pericardiac areas, (4) perispinal areas, (5) subpleural locations (Figure 4), and (6) near the domes of hemidiaphragms. CT improves the chances of detecting nodules in such occult sites.

Since in the early stage, small and occult foci cannot be seen clearly with conventional radiology and can be detected by CT, CT should be performed when pulmonary