## A case of malignant pheochromocytoma with early intense uptake and immediate rapid washout of <sup>99m</sup>Tc-tetrofosmin characterizing the overexpression of anti-apoptotic Bcl-2

Shigetoshi Wakasugi,\* Toshiaki Kinouchi,\*\* Haruo Taniguchi,\*\*\* Kunihiko Yokoyama,\*\*\*\*
Kazuki Fukuchi,\* Atushi Noguchi,\* Masanori Takeshita\* and Terumi Hashizume\*

\*Department of Nuclear Medicine, Osaka Medical Center for Cancer and Cardiovascular Diseases

\*\*Department of Urology, Osaka Medical Center for Cancer and Cardiovascular Diseases

\*\*\*Department of Pathology, Minoh Municipal Hospital

\*\*\*\*Department of Biotracer Medicine, Kanazawa University Graduate School of Medical Sciences

Defective apoptotic program due to the overexpression of the anti-apoptotic Bcl-2 protein of the outer mitochondrial membrane may be a cause of the poor response of malignant pheochromocytoma to <sup>131</sup>I-MIBG therapy. We report a case of malignant pheochromocytoma which showed early intense uptake and immediate rapid washout of <sup>99m</sup>Tc-tetrofosmin characterizing the overexpression of anti-apoptotic Bcl-2 and which was refractory to <sup>131</sup>I-MIBG therapy.

**Key words:** malignant pheochromocytoma, overexpression of anti-apoptotic Bcl-2 protein, <sup>99m</sup>Tc-tetrofosmin, <sup>131</sup>I-MIBG therapy