

## 혈액투석 환자에서 요골동맥의 내막증식이 동정맥루 조기 폐쇄에 끼치는 영향

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The radiocephalic arteriovenous fistula (AVF), which provides the best vascular access for hemodialysis, continues to have a high incidence of early failure. Intimal hyperplasia (IH) of the radial artery is observed commonly in uremic patients before hemodialysis, but the impact of this preexisting IH on the early failure of radiocephalic AVFs has not been reported yet. Therefore, we designed this study to: (1) investigate clinical risk factors for IH, and (2) determine whether preexisting IH of the radial artery is associated with early failure of a radiocephalic AVF. Specimens from the radial artery were obtained during the radiocephalic AVF operation. IH was measured with trichrome staining, and AVF patency was prospectively followed up for 12 months after the operation. Of the 59 patients, 45 patients had evidence of IH in their radial artery (76.2%). Patients with IH (n=45) were older than those without IH (n=14;  $58 \pm 12$  vs.  $44 \pm 17$  yrs;  $p=0.003$ ). The incidence of diabetes mellitus in patients with IH was greater than that in patients without IH (60.0% vs. 28.6%;  $p=0.004$ ). Of the 57 patients, except for 2 patients who died before the end point of the study with patent AVFs, fistula failure was observed only in patients with IH (22 of 44 patients; 50% vs. 0%;  $p<0.001$ ). The intima was thicker in the failed-AVF group than the patent-AVF group ( $93.1 \pm 37.5$  vs.  $45.6 \pm 17.4$  mm,  $p<0.001$ ). This study suggests that early failure of radiocephalic AVFs in hemodialysis patients is closely associated with preexisting IH of the radial artery.