

## VASCULAR SURGERY

PP18-24

### Hyperbaric oxygen therapy for the patients with ischemic non-healing ulcer and no way of revascularization

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Endovascular or surgical revascularization have critical role in the treatment of patients with ischemic ulcers. But some patients have no chance of revascularization, especially those who has diabetes and/or chronic kidney disease or thromboangitis obliterans. Without revascularization, most patients loss their foot or hand. Conservative managements are usually dismal. Hyperbaric oxygen therapy is used for the patients with decompression sickness, carbon monoxide toxicity. Recent guidelines suggested hyperbaric oxygen therapy for the patients with nonhealing ulcer. But hyperbaric oxygen chamber is not easy to access because of scarce number of experienced professionals and of limited numbers of the providing hospitals. Recently, we experienced good wound healing after hyperbaric oxygen therapy in three among four non-revascularizable patients. Major characteristics of the patients are summarized in the table. From our limited experience we experienced that hyperbaric oxygen therapy can be a viable option for ischemic ulcers.

Tab. Summary of brief characteristics of the patient with non-healing ulcers who received hyperbaric oxygen therapy and the results of the treatment.

Age /Sex	Arterial pathology	DM <sup>†</sup>	CKD <sup>†</sup>	Wound		HBOT <sup>‡</sup> duration	Result of wound	Amputation	F/U
				site	duration				
46/M	ASO*, foot	14	Y, 4	toes	2mo	10 d	healed	toe	4mo
36/F	ASO, hand	21	Y, 8	finger	3mo	6 wk	healed	N	4mo
33/F	TAO**, foot	3	N, 0	toe	3mo	4 wk	healed	N	1mo
55/M	ASO, hand	15	Y, 11	fingers	1mo	2 wk	failed	Y	3mo

<sup>†</sup>DM: diabetes mellitus; <sup>†</sup>CKD: chronic kidney disease; <sup>‡</sup>HBOT: Hyperbaric oxygen therapy; \*ASO: arteriosclerosis;

\*\*TAO: thromboangitis;

PP18-25

### Endovascular aneurysm repair of bilateral common iliac artery aneurysms with external to internal iliac artery bypass: a case report

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(Purpose) Isolated common iliac artery aneurysm (CIAA) is rare, less than 2% of all arterial aneurysms and the exact prevalence of isolated bilateral CIAAs has not been estimated. In the surgical or endovascular management of bilateral CIAAs, revascularization of at least one internal iliac artery is necessary to avoid pelvic ischemic complications. We report a case of isolated bilateral CIAAs treated with endovascular aneurysm repair (EVAR) with external to internal iliac artery bypass.

(Case) A 68-year-old male patient presented with enlarging isolated bilateral CIAAs, which was diagnosed six months ago. In computed tomography (CT) angiogram, the maximal diameter was 37mm in left CIAA and 27mm in right CIAA. Both CIAAs did not have a suitable landing zone for the standard iliac limb in EVAR, and therefore he underwent right external to internal iliac artery bypass with 8mm PTFE graft under general anesthesia. The next day, we performed EVAR with left internal iliac artery coil embolization. Completion angiography demonstrated completed exclusion of both CIAAs without endoleak. The patient had no ischemic buttock complaints or any other complications after EVAR. CT angiography at six months showed no migration of stents, no endoleaks and a widely patent right internal iliac artery.

(Conclusion) EVAR with external to internal iliac artery bypass is feasible in the management of bilateral common iliac artery aneurysms to save pelvic circulation.