

# Transcutaneous Exercise Oximetry for Patients With Claudication - A Retrospective Review of Approximately 5,000 Consecutive Tests Over 15 Years

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R�sum� en anglais	<p>BACKGROUND: Exercise transcutaneous oximetry (Ex-tcPO<sub>2</sub>) is used to argue for the vascular origin of lower limb pain, especially at the proximal level, where the diagnosis of peripheral artery disease can be difficult. This study analyzed the principal indications, mean results, and limitations of Ex-tcPO<sub>2</sub>, as well as the relationship between the annual number of Ex-tcPO<sub>2</sub> tests and internal iliac artery (IIA) revascularizations. Methods and Results: Data from our first 15 years' experience (3,631 patients, 5,080 tests) with Ex-tcPO<sub>2</sub> were analyzed retrospectively using the minimal value of the decrease from rest of oxygen pressure (DROP). We had 99.7% of expected DROP results. The proportion of tests showing isolated proximal unilateral or bilateral ischemia ranged from ~5% to ~20%. A gradual increase with time was observed in both the annual number of Ex-tcPO<sub>2</sub> tests (from 0 to ~500 per year) and the annual number of IIA revascularizations performed (from 0 up to 18 per year). At least 85% of patients (77/91) showed function improvement after IIA revascularization.</p> <p>CONCLUSIONS: Ex-tcPO<sub>2</sub> (using DROP) provides an objective argument for exercise-induced ischemia, bilaterally at the distal and/or proximal level. Using Ex-tcPO<sub>2</sub> has improved our diagnostic performance and markedly changed our therapeutic decisions, specifically for proximal claudication. The increased number of Ex-tcPO<sub>2</sub> tests is associated with an increased number of IIA revascularizations, although a causal relationship was not proven.</p>

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