

## Mirror therapy for phantom limb pain in an adolescent cancer survivor

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### ABSTRACT

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**Aims and background.** Several pediatric tumors require mutilating procedures in order to be treated effectively. Although the pain caused by the surgery is usually of a transient nature, the perception of pain in the amputated limb may persist. This prolonged pain, which is often refractory to pain-killing medication, may severely affect the patient's quality of life. The phenomenon of phantom limb pain (or phantom limb syndrome) has been investigated using neurological, neurophysiological and psychopathological approaches. Here we discuss the advantages of an unconventional rehabilitation technique, the recently reported mirror therapy, whose positive effects might be due, according to some researchers, to neuronal plasticity mechanisms.

**Case report.** We describe the use of mirror therapy to treat phantom limb syndrome in a 39-year-old patient whose right leg had been amputated at the age of 17 because of an osteosarcoma. The patient suffered from frequent episodes of pain, with severely negative effects on his quality of life.

**Results.** We obtained positive subjective feedback from the patient, who reported having benefited significantly from using the mirror. The beneficial effect was still present six months after the start of mirror therapy.

**Conclusions.** The reported case highlights the value of an integrated multidisciplinary approach including neurological/psychiatric assessment, clinical psychological support, physiotherapy and other, unconventional treatment modalities. This report should guide future studies towards the application of mirror therapy in order to elucidate its effects and efficacy.

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**Key words:** pain, quality of life, late effects, psychological support, psychology, pediatric oncology.

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