A case of early diagnostics and successful treatment of complex regional pain syndrome (CRPS)
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BACKGROUND
Complex regional pain syndrome (CRPS) is a neurological condition requiring early diagnosis and early multidisciplinary treatment to avoid a chronic condition. CRPS after wrist surgery is a well-known risk. To prevent an acute CRPS to become disabling and chronic intensive hand therapy is mandatory.

CASE PRESENTATION
• 27-year old male, self-employed
• Healthy
• Posttraumatic osteoarthritis secondarily to carpal instability
• Wristfusion with dorsal plate
• Fulminant CRPS day 8 postoperatively
• CRPS treatment with gabapentine, prednisolone, calcium, morphine not sufficient
• Ketamine showed effect within the first 24 hours
• Intensive hand therapy started as soon as possible

Day | Symptoms | Medical treatment*
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0 | Surgery | Infra- and supraclavicular block
2 | Severe pain, rash due to morphine | Block repeated with some effect
3 | Severe burning pain and rash | Continuous infusion of fentanyl started + amitryptoline
6 | Intractable pain -> CRPS suspected | Prednisolone and gabapentine
8 | Intractable pain -> fulminant CRPS | Ketamine infusion initiated
9 | Some effect of ketamine | Less need for fentanyl
10 | Less pain | Oral methadone initiated
14 | Acceptable pain | Fentanyl discontinued
16 | Still progress | Ketamine dose slowly reduced, methadone increased
22 | Acceptable pain | Ketamine infusion discontinued
23 | Acceptable pain | Reduction of methadone started
24 | Discharged |

Discusssion.
Fulminant CRPS is a severe complication to surgery. Correct diagnosis and multidisciplinary treatment including anesthesiologists, hand surgeons and intensive hand therapy must be initiated immediately. The role of ketamine for treating CRPS remains debated in the literature. Only few small studies exist and are inconclusive. Ketamine infusion is not without potential risk, and whether ketamine should be used in acute or chronic CRPS, or in anesthetic or sub anesthetic doses remains unknown. In this case infusion of ketamine in sub anesthetic doses combined with methadone was efficacious in controlling the pain, making intensive hand therapy possible, and thereby reversing the condition.