

## Letter to the editor

# CRPS knee: how frequently encountered in differential diagnosis of knee pain?

Aggarwal A,  
Agarwal A

## Response to the letter to the editor

Bussel, CM van  
Stronks DL,  
Huygen FJPM

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## LETTER TO THE EDITOR

### CRPS knee: how frequently encountered in differential diagnosis of knee pain?

#### To the Editor:

We have read with great interest the paper by van Bussel et al. recently published in *Pain Practice* (1). I wish to congratulate the authors for their valuable contributions.

In the article, 12 patients who had complex regional pain syndrome (CRPS) confined to the knee were included. Although reports have been published involving primarily the knee after total knee arthroplasty, the incidence of CRPS of the knee following trauma or otherwise is not well appreciated (2, 3). We would have appreciated the authors mentioning the presence or absence of any inciting event for the development CRPS of the knee in these 12 patients, which could help better diagnose and manage patients with CRPS of the knee.

Further, conditions affecting the knee frequently do not present with the classic combination of signs and symptoms seen in the upper extremity (4, 5). Did all 12 of the patients fully meet Budapest diagnostic criteria or was any working hypothesis of CRPS made in any patient on clinical grounds after ruling out other conditions? Commentary on this by the authors might have helped in reducing the wide discrepancy in interpretation of the signs and symptoms necessary to make the diagnosis of CRPS.

Also, since CRPS confined to the knee is infrequently encountered in the differential diagnosis of knee pain (6), we would have preferred that the authors share the time frame during which this particular study was conducted.

Thank you.

Aakanksha Aggarwal, MD and Anil Agarwal, MD, MNAMS, FICA, FIAPM  
Department of Anaesthesiology, Sanjay Gandhi Post Graduate  
Institute of Medical Sciences, Lucknow, India

## RESPONSE TO THE LETTER TO THE EDITOR

**Dear Editor,**

We totally agree with the statement of the authors of the letter to the editor that “the incidence of CRPS knee following trauma or otherwise is not well appreciated.” We would like to refer to our earlier published paper in which we concluded that the scientific literature does report cases of complex regional pain syndrome (CRPS) type I of only the knee(s). Our recommendation was to consider CRPS confined to the knee as a medical entity and therefore to include CRPS of only the knee(s) in future research on the etiological mechanisms of and optimal treatment for CRPS (7).

The authors of the letter to the editor stated that “we would have appreciated if presence or absence of any inciting event for the development CRPS knee in these 12 patients could be mentioned, which could be helpful in a better diagnosis and management...” This is a good addition, and we certainly want to provide this information. Within the group of 12 patients who all finished the trial period, the following causes of the knee CRPS were given: 7 patients had undergone (arthroscopic) surgery or an arthroscopy, 4 patients had a trauma of the knee (2 had a luxation of the patella and 2 patients had fallen on the specific knee), and 1 patient had a fracture of the tibia plateau. The surgical causes of CRPS confined to the knee are in line with one of our earlier reports concerning CRPS confined to the knee (7).

Another thing stated by the authors of the letter to the editor was “further, conditions affecting the knee frequently do not present with the classic combination of signs and symptoms seen in the upper extremity (3, 4).” We have studied presentation of CRPS confined to the knee in an earlier study (8). Our conclusion was that the variation in terms of symptoms and signs of CRPS confined to the knee compared to CRPS of the ankle/foot is limited. And the phenotypes of CRPS confined to the knee and CRPS of the ankle/foot seem to be comparable, but not identical. This can be a reason why CRPS in patients with pain of the knee that is disproportionate to the initial trauma is sometimes not recognized. Nevertheless, the International Association for the Study of Pain (IASP) clinical Budapest diagnostic criteria can and should be used to diagnose CRPS confined to the knee.

A further question raised by the authors of the letter to the editor was “... did all of the 12 patients fully meet Budapest diagnostic criteria or any working hypothesis of CRPS...?” We can answer this question with “yes.” All of the patients included in this study fully met the IASP clinical Budapest diagnostic criteria, as this was one criterion for participation

in the study. All inclusion and exclusion criteria were described in Table 1 of the original manuscript.

The last question of the authors was “... could share with us the time frame during which this particular study was conducted?” Patients who were included in the study had a diagnosis of CRPS for over 1 year, as this was one of the inclusion criteria for participation. The total length of the study was 1 year per patient; this includes the follow up of 12 months after neurostimulation implantation. The time between the first patients being included and the last patient scheduled for 12 months’ follow-up was approximately 3 years.

We agree with the authors of the letter to the editor that “CRPS confined to the knee is infrequently encountered in differential diagnosis of knee pain (6).” We hope that our previous and current work, the letter to the editor, and our answers will change this and be of help for those patients with a serious, invalidating problem that is denied too often.

On behalf of all the authors, I thank the editor for the opportunity to comment on the questions raised and the notes made by the authors of this manuscript. We hope we have added more understanding of our paper with these answers.

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