

## LETTER TO THE EDITOR

## Prevalence and severity of pruritus in Spanish patients with chronic kidney disease and impact on quality of life: a cross-sectional study

Nuria Aresté<sup>1</sup>, J. Emilio Sanchez-Alvarez<sup>2</sup>, Mario Prieto-Velasco<sup>3</sup>, Pablo Molina<sup>4</sup>, Vicent Esteve-Simó<sup>5</sup>, Raquel Ojeda<sup>6</sup>, Juan Manuel Buades<sup>7</sup>, Marian Goicoechea<sup>8</sup>, Rafael Sanchez-Villanueva<sup>9</sup>, Guillermo Alcalde Bezhold<sup>10</sup>, Rosa Elena Pérez-Morales<sup>11</sup>, Ana Blanco Santos<sup>12</sup>, Roser Peiró-Jordan<sup>13</sup> and María Dolores Arenas<sup>14</sup>; on behalf of the Pruritus Week Group\*

<sup>1</sup>Hospital Universitario Virgen Macarena, Department of Nephrology, Sevilla, Spain, <sup>2</sup>Hospital Universitario de Cabueñes, Department of Nephrology, Gijón, Spain, <sup>3</sup>Complejo Asistencial Universitario de León, Department of Nephrology, León, Spain, <sup>4</sup>Pablo Molina, Pablo; Hospital Universitario Dr Peset, Department of Nephrology, Valencia, Spain, <sup>5</sup>Hospital de Terrassa, Department of Nephrology, Tarrasa, Spain, <sup>6</sup>Hospital Universitario Reina Sofía, Department of Nephrology, Córdoba, Spain, <sup>7</sup>Hospital Son Llatzer, Fundació Institut d'Investigació Sanitària Illes Balears, Nephrology, Palma de Mallorca, Spain, <sup>8</sup>Hospital General Universitario Gregorio Marañón, Nephrology Unit, Madrid, Spain, <sup>9</sup>Hospital Universitario La Paz, Department of Nephrology, Madrid, Spain, <sup>10</sup>Hospital Universitario de Alaba, Department of Nephrology, Álava, Spain, <sup>11</sup>Hospital Universitario Nuestra Señora de la Candelaria, Department of Nephrology, Santa Cruz de Tenerife, Spain, <sup>12</sup>Fresenius Medical Care Diálisis Alcobendas, Department of Nephrology, Alcobendas, Spain, <sup>13</sup>Vifor Pharma, Medical Department, Madrid, Spain and <sup>14</sup>Fundación Renal Íñigo Álvarez de Toledo, Department of Nephrology, Madrid, Spain

Correspondence to: J. Emilio Sanchez-Alvarez; E-mail: [jesastur@hotmail.com](mailto:jesastur@hotmail.com)

\*Members of the Pruritus Week Group are listed in Appendix 2.

Chronic pruritus is a distressing symptom [1] defined as an unpleasant sensation of the skin leading to the desire to scratch, present for 6 weeks or more [2, 3]. The aetiology of pruritus can be diverse and includes dermatologic, systemic, neurological and psychiatric causes [3]. The prevalence of chronic kidney disease (CKD)-associated pruritus (CKD-aP) found in different studies is 40%–90% in patients undergoing haemodialysis, and 19%–29% in non-dialyzed patients [4]. Despite the fact that pruritus

is also associated with some clinical outcomes such as the number of missed dialysis sessions, the risk of hospitalization and mortality, clinicians still tend to underestimate the appearance of CKD-aP [5, 6]. This study was conducted to estimate the prevalence of pruritus and its impact on different dimensions of quality of life (QoL) in the Spanish population with CKD.

A short survey (Appendix 1) was designed using seven questions included in some validated tools for pruritus assessment.

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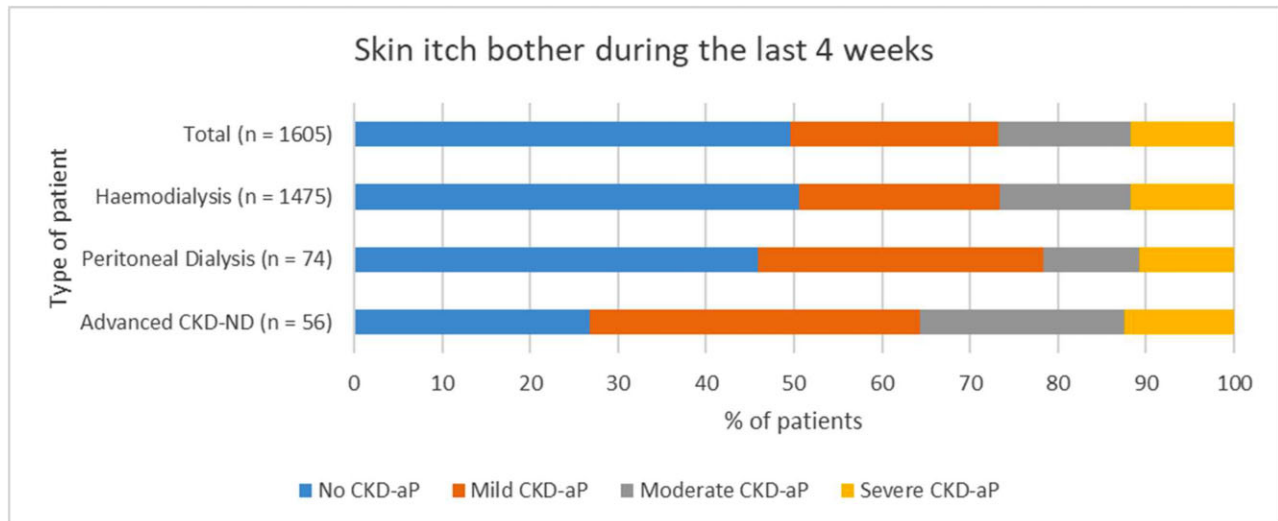


Figure 1: Skin itch in different types of patients with CKD: according to 20 KDQOL (last 4 weeks).

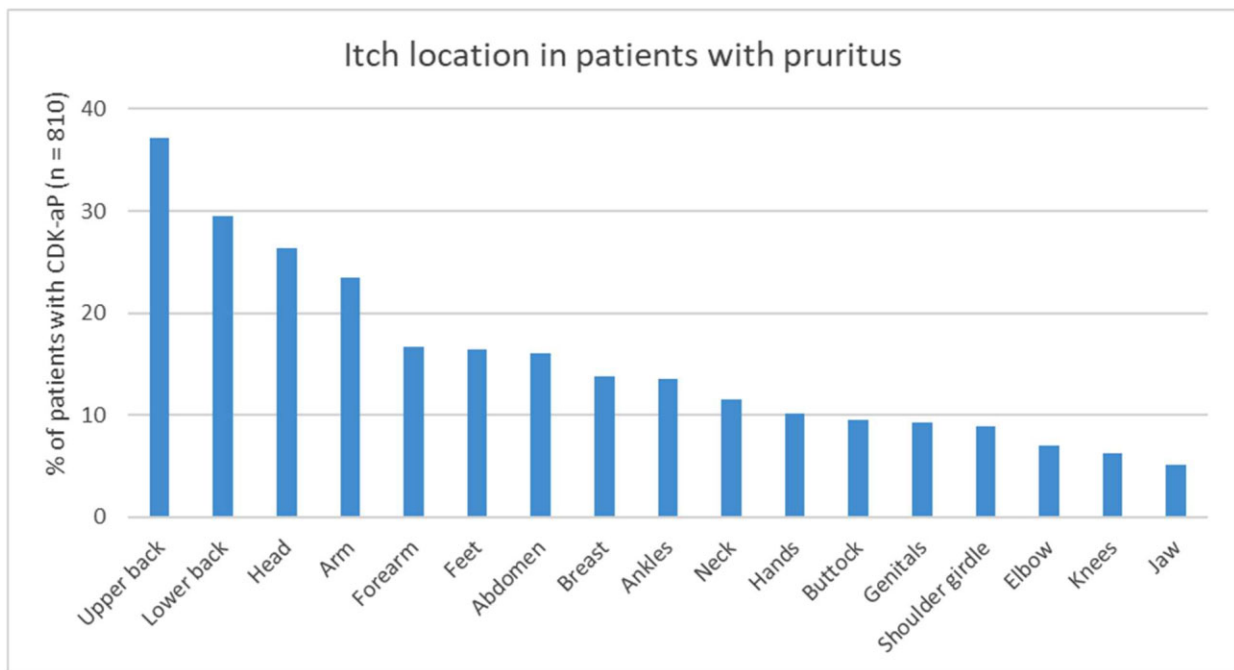


Figure 2: Body distribution of pruritus associated to CKD: percentage of patient CKD-aP presenting itch at different body areas.

We included question number 20 of the KDQOL™ survey [7] ('During the past 4 weeks, to what extent were you bothered by itchy skin?'); in addition, the worst itch during the last 24 h was addressed as in the Worst Itch Numeric Rating Scale, in which 0 means no itch and 10 the worst itch imaginable [8], and the impact on QoL was determined using the following questions from the Itch Severity Scale (ISS) [9]: ISS-1 addressed the frequency of itch throughout the day; ISS-3 addressed itch distribution, by indicating the itchy body areas; ISS-5 addressed the impact of itch on patients' mood, enquiring whether itch produced changes in patients' mood, leading them to feel depressed, more agitated, and have difficulty in concentration or anxious; ISS-6 addressed the affectation of sexual activity and desire; ISS-7 addressed quality of sleep. The questionnaire

was distributed by the Spanish Society of Nephrology to all their members. Nephrologists visiting patients with advanced CKD asked them to voluntarily answer the questionnaire.

A total of 1605 patients answered the questionnaire. Mean age was 67.7 years ( $\pm 14.0$ ), and median age was 70.0 years (P25–75 59.0–78.0). From all, 1475 (91.9%) were receiving haemodialysis, 74 (4.6%) were on peritoneal dialysis, and the remaining 56 (3.5%) were non-dialyzed advanced CKD patients. The prevalence of CKD-aP was 50.5%, and 26.7% of patients presented moderate-to-severe CKD-aP. According to CKD treatment modality, 729 (49.4%) patients on haemodialysis, 40 (54.1%) patients on peritoneal dialysis and 41 (73.2%) non-dialysed patients reported itch bother (Fig. 1). CKD-aP patients reported itch throughout the body (Fig. 2) and at any moment

of the day, but more at night. The prevalence of mood changes increased as severity of itch did, being the anxious and more agitated patients the most affected. Sexual function and desire were impaired as severity of CKD-aP increased. CKD-aP patients reported more sleeping disturbances than patients with no pruritus, which were enhanced at higher severity.

The main finding of this work, with a large number of participants, is that the prevalence of pruritus among Spanish patients affected by advanced CKD is 50.5%, which is within the range of previously reported prevalence [4]. More than one out of four patients reported moderate-to-severe CKD-aP, which is also in line with previous findings [4]. As previously published, itch distribution in CKD-aP patients is highly variable from patient to patient, and it appears to be generalized in up to 50% of them [4] and symmetrical in more than 80%. According to our results, itch was present in many body areas, with back, head and arms being the most affected, and as CKD-aP increased in severity, the greater was the presence of pruritus in all the areas that have been reported. In our study, itch affected patients' QoL by inducing mood changes, impairing sexual activity and affecting the quality of sleep as previously published [10].

### SUPPLEMENTARY DATA

Supplementary data are available at [ckj](#) online.

### CONFLICT OF INTEREST STATEMENT

None declared.

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