Clinical, epidemiological and therapeutic profile of patients with brachioradial pruritus in a reference service in dermatology*

Ana Cecília Versiani Duarte Pinto[1]
Paula Yoshiko Masuda[1]
Patrick Alexander Wachholz[2]
Antonio Carlos Ceribelli Martelli[1]

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Abstract: This is a cross-sectional study, conducted from May to November/2014, in a dermatology reference unit, through review of medical records and interviews. In a sample of 49 patients with brachioradial pruritus, we observed higher prevalence of Caucasian (81.6%) and women (73.5 %), with a mean age of 56.1 years. Pruritus occurred in the topography of brachioradialis muscle in 87.8% of cases; 59.2% of the sample reported worsening of pruritus with sun exposure; the mean intensity of this symptom before treatment was 8.63. Therapy effectiveness was described as "very good/good" in 79.2% of cases, and for 55.3% relapses were categorized as "uncommon".

Keywords: Case studies; Epidemiology, descriptive; Pruritus; Skin diseases; Skin manifestations

The brachioradial pruritus (BRP) is an uncommon neurodermatitis, of uncertain etiology. [1,2,3] This condition is polymorphic, with itching, burning, stinging, or tingling sensations, particularly in the topography of the brachioradialis muscle (BRm), unilaterally or bilaterally.[4,5,6] Occasionally, it extends to the upper arms, shoulders, back, and cervical region or upper thorax. [4] The insidious clinical course, late diagnosis and poor or absent response to antihistamines and corticosteroids are associated with a significant impairment in the quality of life.[1,4] Most publications involving BRP are case reports or case series [4,5,6] and there is no standardization in the assessment of disease severity, impact and activity that allows direct comparison between studies. More comprehensive descriptions of BRP clinical presentation and response to treatment, with respect to the intensity of symptoms and therapeutic response, are gaps in the medical literature.

This study describes the clinical and therapeutic characteristics of patients with BRP followed in a dermatology reference unit, using reproducible patterns for measuring the intensity of symptoms and evaluation of therapeutic response.

This is a descriptive, cross-sectional, study, conducted between May and November 2014 through review of medical records and personal interviews. BRP diagnosis was defined as complaints lasting more than six weeks, according to a protocol for clinical and laboratory research of chronic pruritus, with a final sample of 49 patients. [2]

Data were analyzed in the software Sphinx Lexica 5.0 and SPSS 18.0, using descriptive statistics. This was a convenience sample, and the study was approved by the Ethics Review Board (CAAE-17133213.9.0000.5475).

BRP was more frequent in women (73.5%) and Caucasian (81.6%), with mean age of 56.1 ± 10 years. Time between onset of the pruritus and the first attendance in the unit ranged from 2 to 36 months, with mode of 24 months.

The intensity of pruritus was measured using a Visual Analogue Scale (0-10), with a mean of 8.63 before treatment. The onset of symptoms in BRm topography occurred in 87.8% of patients, bilateral involvement in 77.6%, and intermittent symptoms in 73.5%.

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[1] Instituto Lauro de Souza Lima (ILSL) – Bauru (SP), Brazil.
[2] Universidade Estadual Paulista "Júlio de Mesquita Filho" (Unesp) – Botucatu (SP), Brazil.

Table 1: Description of the main therapeutic options for the treatment of brachioradial pruritus, according to the amount of drugs used - Bauru (SP), Brazil, 2014

	Frequency (n)	Percentage(%)
None	4	8.2
Monotherapy	29	59.2
Combination of 2 drugs	15	30.6
Combination of 3 or more drugs	1	2.0
TOTAL	49	100.0

The follow-up time ranged from 8 to 60 months, with a median of 35 months. In this period, recurrences were considered "uncommon" by 55.3% of patients, "frequent" by 29.8% and "very common" by 2.1%. Among the patients, 12.8% remained without pruritus during follow-up.

BRP is a peculiar medical condition diagnosed with increasing frequency in Dermatology. Most studies described a higher prevalence of the disease in women,[4,8] with mean ages greater than 50 years.[3,4,6]

Table 2: Description of drugs used in the treatment of brachioradial pruritus by pharmacologic class, frequency and percentage of citations - Bauru (SP), Brazil, 2014

	Citation frequency(n)	Percentage (%)
Tricyclic antidepressants	22	33.3
Benzodiazepine derivatives tricyclic antidepressants	15	22.8
Antipsychotics	12	18.1
Anticonvulsants	07	10.6
Serotonin reuptake inhibitor antidepressant	04	6.1
Antihistamines	02	3.0
None	04	6.1
TOTAL	66	100.0

We analyzed worsening factors for pruritus: for 51% of the sample it was worsened with touch; for 59.2%, with sun exposure; for 75.5%, with heat. For 91.8%, the pruritus worsened with the act of scratching; the worsening of symptoms at night was confirmed by 69.4% of the sample.

The Ice-Pack signal was positive in 46.9% patients, of whom 43.5% reported "good reduction" of itching with local ice application.[7]

Anatomical changes in cervical thoracic spine were investigated by X-ray: reduction of the intervertebral spaces was found in 61.2%, and C6-C7 topography was the most affected (69.4%).

Monotherapy was used in 59.2% of cases. Traditional tricyclic antidepressants (TCAs; amitriptyline, for example) were used in 33.3% of patients; doxepin (dibenzoxepin derivative TCA) in 22.8%, followed by antipsychotics (18.1%) and anticonvulsants (10.2%). The effectiveness of treatment was considered "very good" and "good" in 79.2% of cases; 12.5% of the patients did not observe changes in symptoms (Tables 1 and 2).

Considering that BRP can be a harrowing morbid condition,[1] clinical characterization is necessary for the proper management. Worsening factors, such as touch, sun exposure, the act of scratching and seasonality – have been reported in other case series.[2,4,5,6]

Mean follow-up in this study was higher than that described in previous series.[5,6] TCAs, antipsychotics and anticonvulsants are central modulators of pruritus.[9] This study suggests that these drugs may be effective in BRP, reducing symptoms, as well as recurrences.

This survey has limitations related to the study design, the sample size and selection method. New studies should assess the validity and psychometric properties of measures of disease activity or response to treatment in BRP.❑

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Mailing address:
Patrick Alexander Wachholz
Rodovia Comandante João Ribeiro de Barros, km 225/226
Bauru
17034-971 - São Paulo - SP
Brazil
Email: p_wachholz@hotmail.com

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