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SCIENTIFIC LETTER

Observational and cross-sectional study on the use of homoeopathy in a paediatric emergency care service☆

Estudio observacional transversal sobre el uso de homeopatía en un servicio de urgencias pediátricas

Dear Editor:

Homoeopathy was developed by Samuel Hahnemann in 1796 based on the tenet that *like cures like*. Its use is not based on scientific evidence and it is known that it can increase risk in patients due to the use of additives that may not be harmless or to delays in treatment.[1] The sale of homoeopathic products in pharmacies facilitates access to them, which adds another element to the debate on its use in society at large and the health care field in particular. There are frequent articles on this subject both in the scholarly and the popular literature. This situation has motivated interventions such as the recent publication of a position statement on the use of alternative medicines and pseudoscience in children by the Medicines Committee of the Asociación Española de Pediatría (Spanish Association of Paediatrics, AEP) and an educational campaign of the Ministry of Science concerning the risks involved in these therapeutic approaches.[2]

When it comes to the paediatric age group, there is a dearth of data on the prevalence of the use of homoeopathy in inpatient or outpatient care in Spain. The evidence currently available consists of estimates or surveys of households conducted by telephone.[1,3,4] This scientific letter describes the use of homoeopathy in a paediatric cohort. We also analysed the therapeutic properties attributed to homoeopathy and the source of its prescription.

We collected data through a questionnaire that has not been validated (Table 1). We administered this questionnaire to parents of patients that visited the emergency department of the Hospital Infantil Universitario Niño Jesús (a tertiary care children's hospital in Madrid, Spain) between December 5, 2017 and January l9, 2018. Participation in the survey was voluntary and anonymous and followed informed consent. We excluded patients with any form of chronic disease. We also confirmed that the products that parents reported using were in fact homoeopathic products. We then performed a descriptive analysis of the responses.

The sample included 286 questionnaires. Fifty-five percent of respondents (158/286) attributed therapeutic properties to homoeopathy. Forty-nine percent (139/286) reported having used homoeopathic remedies to treat their children at least once. In this subset, in the past year, 48% (67/139) used one product in their children, 14% (19/139) used 2, and 11% (15/139) used more than 2 (Fig. 1). Fig. 1 presents the sources that indicated the use of homoeopathy most frequently. Forty-four percent of participants that reported using homoeopathic remedies (118/286) were satisfied with the results. In the items concerning the usefulness of homoeopathy, 44% (126/286) expressed that homoeopathy could be useful in respiratory diseases, 42% (120/286) that it could help ''strengthen defences'' against infection, and 26% (74/286) that it could be useful for gastrointestinal diseases. Also, 67% (191/286) considered it could be useful to treat bacterial infection. We found that 28% (39/139) were not sure whether they had used homoeopathic products. Respondents reported using homoeopathic products to suppress cough and treat other common cold symptoms (49%, 68/139), infantile colic (27%, 37/139) and toothache (24%, 34/139).

In this study, the first observational descriptive study on the use of homoeopathic products in children performed in a clinical practice setting in Spain, we found that the use of homoeopathy was much more prevalent than expected.[1,3] In our study, 63% of parents or caregivers reported having used homoeopathic remedies, and also having used them in half of the children included in the study. Another salient finding was that in 60% of cases, homoeopathic remedies had been recommended by pharmacists and primary care physicians. It is important to underscore this, as it is most often professionals in the health care field that are recommending a treatment that is ineffective, potentially harmful and an unnecessary expense.[2,5]

As for the usefulness attributed to homoeopathy, respondents considered it useful mainly for treatment of upper respiratory tract infections, gastrointestinal infection or baby colic, which are all generally self-limiting processes that resolve spontaneously.[6] Another of the benefits commonly attributed to it is that it may strengthen immune defences, and therefore homoeopathic remedies are sometimes used in combination with pharmaceuticals, such as antimicrobial drugs. The belief that homoeopathy may be effective for treatment of bacterial infections is particularly alarming.[3]

☆ Please cite this article as: Arévalo-Cenzual A, Garriga Ferrer-Bergua L, Cabrero-Hernández M, Andina-Martínez D, García-Salido A. Estudio observacional transversal sobre el uso de homeopatía en un servicio de urgencias pediátricas. An Pediatr (Barc). 2021;94:46–48.

Table 1 Questionnaire on the use of homoeopathic products on the paediatric population.

1. Do you believe that homoeopathic products are effective?
   ☐ Yes ☐ No
2. Have you ever used any homoeopathic products?
   ☐ Yes ☐ No
3. If you answered ''Yes'' to the last question, were you satisfied with the homoeopathic product you used?
   ☐ Yes ☐ No
4. Which childhood diseases do you think that homoeopathic products can be effective for? You can select more than one answers:
   ☐ Respiratory diseases (flu, common cold, asthma, bronchitis, bronchiolitis...)
   ☐ Gastrointestinal diseases (vomiting, diarrhoea, gastroenteritis...)
   ☐ Allergies
   ☐ Strengthening ''defences'' against infection
   ☐ Skin problems
   ☐ Traumatic injuries, fractures and sprains
   ☐ None
5. Do you think homoeopathic products are effective for treatment of bacterial infections in children?
   ☐ Yes ☐ No
6. Have you ever used a homoeopathic product to treat your child?
   ☐ Yes ☐ No
7. If you answered ''Yes'' to the last question, how many homoeopathic products have you used to treat your child in the past year?
   ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ More than 3
8. Please list the names of any homoeopathic products you have used to treat your child if you can remember them
9. If you answered ''Yes'' to question 6, who recommended using this homoeopathic product?
   ☐ Primary care doctor
   ☐ Emergency care doctor
   ☐ Specialist at the hospital
   ☐ Private doctor
   ☐ Pharmacist
   ☐ Relative, friend
10. If you have ever used a homoeopathic product to treat your child: were you satisfied with it?
    ☐ Yes ☐ No
11. If you have ever used a homoeopathic product to treat your child: do you think that it contributed to the cure?
    ☐ Yes ☐ No

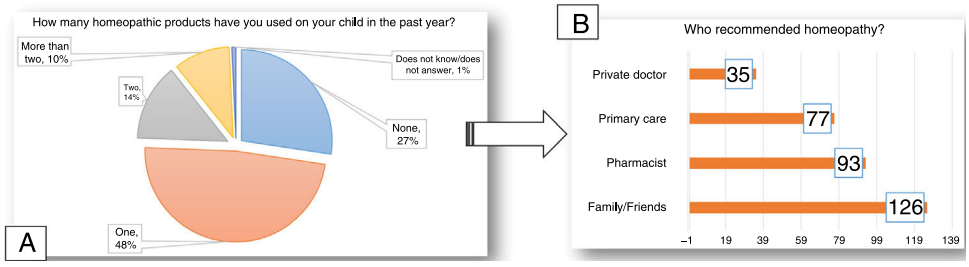

Figure 1 a. Number of homoeopathic products used in the year previous to participation in the survey. b. Frequency distribution of the source that recommended use of homoeopathic products in the total sample of responses.

There are significant limitations to this study. The instrument used for data collection has not been validated and we collected data over a short period of time, in a specific season and in a single centre. The period under study included a long holiday. In light of this, it could have been useful to explore the country of origin of respondents to consider the potential influence of these factors. Furthermore, the characteristics of the respondents may not be representative of the rest of the population in Spain. We did not collect sociodemographic data or information on other social factors that could have an impact on the results, which clearly affects the external validity of the study. Last of all, potential misunderstandings of what homoeopathy is may be a significant source of bias in the interpretation of responses.

In conclusion, we found substantial use of homoeopathic products in children in our sample, and also that the use of these products had been recommended by professionals in the health care field in more than half of the cases. More studies with larger samples and in multiple centres are required to confirm or refute these findings.

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https://doi.org/10.1016/j.anpede.2020.02.012
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Systemic sarcoidosis; when splenomegaly is not what it seems*,**

Sarcoidosis sistémica: cuando la esplenomegalia no es lo que parece

Dear Editor:

Sarcoidosis is a rare multisystemic disease characterized by the development of noncaseating granulomas in different tissues.[1,2] There are 2 forms of juvenile sarcoidosis: early-onset sarcoidosis or Blau syndrome, and late-onset sarcoidosis, which is of unknown aetiology and has a heterogeneous clinical presentation, although pulmonary manifestations are most frequent.[3,4] Splenic involvement is rare, and only a few cases of it have been published in the literature.[3]

We present 2 cases of juvenile sarcoidosis with onset with massive splenomegaly.

Case 1: boy aged 11 years with no relevant history that presented with fever of 12 days' duration, mild lymph node enlargement in the submandibular, axillary and inguinal regions, and hepatosplenomegaly detectable on palpation through the iliac fossa. The salient findings of blood tests were leukopenia (1570/mm^3), neutropenia (610/mm^3) and thrombocytopenia (77 000/mm^3), confirmed by examination of a peripheral blood smear, a creatinine level of 0.93 mg/dL and hypertransaminasaemia (aspartame aminotransferase, 73 U/L; alanine aminotransferase, 85 U/L). There was no elevation of C-reactive protein or the erythrocyte sedimentation rate. The findings of the chest radiograph were unremarkable, and the abdominal ultrasound scan confirmed the presence of hepatosplenomegaly.

Serological tests, cultures and viral polymerase chain reaction tests for viral detection (including cytomegalovirus and Epstein–Barr virus [EBV]), as were the Mantoux test and QuantiFERON assay. Immunoglobulin levels were normal. The patient had an elevated level of angiotensin converting enzyme (ACE, 248.9 U/L; normal range, 8–55 U/L) and hypercalcaemia (10.86 mg/dL).

The patient underwent a magnetic resonance scan of the thorax and abdomen and a positron emission tomography (PET) scan (Fig. 1).

The bone marrow biopsy revealed an absence of cancerous cells, and the lymph node biopsy the presence of Schaumann bodies.

These findings, having ruled out an infectious or cancerous aetiology, led to diagnosis of sarcoidosis.

During the diagnostic process, the fever and blood test abnormalities resolved, and the hepatosplenomegaly improved, so the episode was considered to be self-limited.

At 18 months, the patient experienced a recurrence of leukopenia, hypertransaminasaemia and elevation of ACE. The ultrasound scan revealed nephrocalcinosis. This led to initiation of treatment with oral corticosteroids at a dose of 0.5 mg/kg/day, with a positive response, although the patient also required methotrexate delivered subcutaneously at a dose of 15 mg/m^2/week that was eventually switched to adalimumab due to the presence of hypertransaminasaemia. During the follow-up, the patient developed a new episode triggered by infection that resolved with corticosteroids.

☆ Please cite this article as: Cobreros-Pérez Á, Galindo-Zavala R, Carazo-Gallego B, Martín-Pedraz L, Núñez-Cuadros E. Sarcoidosis sistémica: cuando la esplenomegalia no es lo que parece. An Pediatr (Barc). 2021;94:48–50.

** Previous presentations: this study was presented at the 46th Annual Meeting of the Sociedad de Pediatría de Andalucía Oriental, March 2019, Jaen, Spain; and the 67th Congress of the Asociación Española de Pediatría, June 2019, Burgos, Spain.