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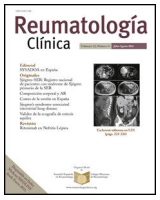

Letter to the Editor

Metric studies of the compliance questionnaire on rheumatology (CQR): A case of validity induction?☆

Estudios métricos del Compliance Questionnaire on Rheumatology *(CQR): ¿un caso de inducción de la validez?*

Dear Editor,

This letter highlights several issues in the literature regarding the metric properties of the *Compliance Questionnaire on Rheumatology* (CQR),[1] which demonstrate a strong essential weakness of the studies that use them, together with conclusions extracted from them. The CQR is possibly one of the adherence measures that is being incorporated into most frequently into studies. In a recent bibliographic review,[2] 5 out of the 9 selected studies used it. Furthermore, recommendation 16 of the Spanish Rheumatology Society,[3] suggests developing validation studies for treatment adherence measures with methotrexate (MTX), and shows that the CQR is the only validated method.

In the CQR[4–9] validation literature it may be determined that highly frequent types of specific evidence validity refer to patient classification, and the convergent and divergent relationship with other criteria. However, the less used, more ignored method is that of internal structure validity – i.e. the scalability of the CQR which analyses the item-score relationships to define the configuration of the total scoring. Only 2 replication studies have researched their internal structure,[6,10] and in them the single dimensionality of the CQE was not corroborated. In other words, the 19 items were not grouped into a single statistical dimension.

This implies 3 things: firstly, that there was no empirical justification to use a single score derived from the simple or weighted sum of the items. Second, some equivalence problems of the CQR compared with other similar measures may be caused by this problem of scalability (see Marras et al.[4]). Third, the situation seems to describe *validity induction*,[11] which occurs when the validity affirmation is supported by a tool using 1) studies from other cultural contexts (for example, citing the original study[1] or another made in another country, with a different type of participant, and/or clinical situation), 2) selecting the type of irrelevant evidence (for example, declaring that Cronbach's alpha reliability indicates the validity of the scoring) or 3) exchanging specific validity evidence (for example, inferring that the predictive capacity of the CQR is proof of satisfaction with treatment or with the validity in general.

For the latter implication, although it has been recognised that the CQR obtains appropriate levels of prediction in studies with patients who suffer from arthritis and has acceptable levels of reliability, this evidence is not exchangeable with the evidence required to demonstrate that the total score may be interpreted as a unit. In any described situation, the evidence of inducing validity is the omission of analysing the CQR scalability to uphold the interpretation of a single score.

How can the use of a single score be justified if the empirical evidence that must uphold it is missing or questionable? Can the studies which question the single dimensionality of the CQR[6,10] be taken into account? The strongest outcomes to date on the internal structure or scalability of the CQR do not guarantee that a single score be used, unless they reduce the number of items[10]; another option of interpretation is to accept the multidimensionality of the CQR,[6] and that the rheumatologist must assess whether they wish to use it in this way or not.

We conclude that, due to the apparent inconsistency in the factorial CQR structure, studies with the CQR must include corroboration of their internal structure, take advantage of current validation recommendations,[12] and highlight any international collaborations within them.

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Kabuki syndrome with Sjögren Syndrome: First case reported☆

Síndrome de Kabuki con síndrome de Sjögren: primer caso descrito

Dear Editor,

Kabuki syndrome (KS) is a genetic syndrome characterised by typical facial features (palpebral fissures with inverted lower eyelids, arched eyebrows, depressed nasal tip), musculoskeletal abnormalities (brachydactyly, clinodactyly of the fifth digits and spine abnormalities), abnormal epidermal ridges, short stature, and intellectual deficit[1].

Although the association between KS and autoimmune disease is well documented, probably due to mutations in the dysregulation of lymphocyte differentiation[2,3], this is the first reported case of association with primary juvenile Sjögren's syndrome (jSS).

We present the case of a 9-year-old Caucasian girl diagnosed with KS (15654C>G mutation in exon 48 of gene KMT2B) and father with systemic lupus erythematosus (SLE).

Her symptoms started with xerophthalmia (red eye, stinging sensation and ocular lacrimation) associated with xerostomia (drinking more than 3 l of water per day, including night waking) and occasional mouth ulcers. She reported intermittent polyarthralgia, without oedema or stiffness. No history of parotitis or Raynaud's phenomenon.

On examination, she presented dysmorphic features typical of KS, joint hypermobility without arthritis, cutaneous xerosis, cracked tongue and impalpable salivary glands.

Laboratory tests reported normal haemogram, elevated amylase, ANA 1/1000 with speckled pattern, positive anti-SSa, normal complement and mild hypergammaglobulinaemia. Inflammatory markers, urinary sediment and the remaining immunological study were normal. Salivary gland ultrasound (SGUS) showed normal dimensions, heterogeneous parenchyma, and hypoechoic areas, compatible with jSS. Biopsy of the minor salivary glands was normal.

She was observed by the ophthalmology department who confirmed keratoconjunctivitis sicca, with positive Schirmer test and Ocular Staining Score $\geq$5.

Due to transient liver function elevation, she underwent a liver autoimmunity panel, which was negative. The elevated liver function in this syndrome could be due to autoimmune hepatitis or primary biliary cirrhosis, and was therefore excluded.

She started treatment with general measures for xerostomia and oral hygiene, ocular lubrication, and skin hydration. During follow-up she developed mild photosensitive malar erythema. Due to the risk of overlap with SLE and mild systemic manifestations (arthralgias and hypergammaglobulinaemia), treatment was started with hydroxychloroquine 4 mg/kg/day.

We now know that SS is an autoimmune disease characterised by T-lymphocyte infiltration at the level of the exocrine glands. This infiltration leads to destruction of the exocrine glands and the onset of symptoms related to dryness of the infiltrated mucous membranes. Up to one third of patients may present with more active and severe extraglandular manifestations that affect long-term prognosis[2–4].

In children SS is rarely primary, as in our case, and therefore close monitoring is essential in this type of patient due to the risk of overlap with another connective tissue disease[5].

There are currently no diagnostic criteria for SS in the paediatric age group; adult criteria depend too much on evidence of glandular dysfunction, which takes time to develop and is less evident during childhood. Biopsy at this age has a low sensitivity due to the small size of the glands, diagnostic difficulty and being able to biopsy an area that is normal[5]. Nevertheless, our patient meets the 2016 ACR/EULAR criteria[6].

There are international groups that are working on diagnostic criteria for SS adapted to the paediatric age group. Since we know that recurrent mumps is the most typical form of presentation in this age group, including this entity in these criteria seems to increase diagnostic sensitivity for jSS. It is possible that the combination of salivary gland inflammation (clinical or subclinical parotitis, SGUS or histopathology changes) and positive autoantibody may be sufficient to diagnose SS in a child.

If there are suggestive symptoms, patients with KS should always be thoroughly assessed for autoimmune disorders. This is the first case described in the literature of both syndromes.

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