Mucous membrane pemphigoid (MMP) describes a heterogeneous group of chronic inflammatory subepithelial blistering diseases with a combination of oral, ocular, skin, genital, nasopharyngeal, esophageal and laryngeal lesions [6]. MMP limited to the eyes is known as POMMP, which begins as a chronic conjunctivitis with progressive subepithelial fibrosis and may, later in the course of the disease, lead to lasting shortening of the fornix, symblepharon, ankyloblepharon, trichiasis, entropion, obstruction of the lacrimal duct and ultimately to corneal cicatrization and keratinization [6, 7]. If left untreated, OMMP can lead to blindness. Although MMP and OMMP have been described in rheumatic patients with RA and SLE [8, 9], to the best of our knowledge, this is the first report of POMMP in a patient with axial SpA: two well-described diseases of immune dysregulation. The case highlights several points.

(i) It is worth noting that the diagnosis of SpA was delayed by about 30 years from the onset of axial symptoms in this case and was brought to the physician's attention after the refractoriness of POMMP prompted a rheumatology referral. This is reminiscent of AAU as the only presenting symptom that draws attention to the diagnosis of SpA [3] and other HLA-B27-associated extraocular diseases [5]. Such a significant delay in SpA diagnosis is well recognized worldwide [10].
(ii) There was no involvement of mucous membranes other than the conjunctivae in the case presented.
(iii) The age of onset of POMMP in this case (58 years) is slightly below the average reported age (the seventh decade of life).

Although the concomitant occurrence of the two immune-mediated ailments by chance cannot be completely excluded, clinicians should nonetheless be aware of POMMP as a possible ocular manifestation of SpA.

Rheumatology key message

- Clinicians should be aware of POMMP as a possible ocular manifestation of SpA.

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Comment on: The value of colour Doppler sonography of the knee joint: a useful tool to discriminate inflammatory from non-inflammatory disease?

SIR, We read with great interest the article by Beitinger *et al*. [1], in which the authors assess the usefulness of colour Doppler ultrasonography (US) to discriminate inflammatory arthritis from non-inflammatory diseases of the knee. We would like to raise some important points regarding the methodology, as the technique can modify all the results of the study.

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First, the authors reported that US was performed in four different planes: a suprapatellar longitudinal scan, an infrapatellar longitudinal scan and medial and lateral longitudinal scans. The total US scores were then calculated by adding power Doppler scores obtained from all four sites. This scanning technique is not in accordance with other US studies where scanning is performed at three sites: the supra-patellar pouch and the medial and lateral recesses [2, 3]. The knee joint cannot be visualized with an infrapatellar view. The main abnormality that can be seen via an infrapatellar scan is enthesitis of the patellar tendon as well as bursitis of the superficial and deep infrapatellar bursa. Although bursitis is a frequent feature of RA, this is not scored as a part of knee joint synovitis and, by definition, is not mentioned in the current article as well. Whether power Doppler scores for bursitis were also increased in these patients is another research question and clearly needs assessment of enthesitis of the patellar tendon, as entheseal abnormalities are frequently seen with bursitis and possibly related to each other [4]. So we believe that for the purpose of the current study, only scores obtained via suprapatellar, medial and lateral scans should have been compared in patients with inflammatory arthritis and OA.

Second, it has been reported that an intra-articular Doppler signal can be found in ~19–55% of all knee arthritis [3, 5]. We also demonstrated in a recent trial that the prevalence of a power Doppler signal is 16.3% in inflammatory arthritis and 6.7% in OA [6]. However, in the current article Beitinger *et al.* [1] detected a power Doppler signal in most of the cases, including OA patients, where only three of them were power Doppler negative. This is in contrast with the literature and deserves a reply to the question of why there is such a difference between trials if the same Doppler technique is used to avoid artefacts. Providing images for different sites and degrees of inflammation would be convincing for the readers.

Third, Doppler information is always used on top of grey-scale information [5]. This is important both in terms of the definition (Doppler signals are considered abnormal when detected in synovial tissue in grey scale) and for scoring, since Doppler findings are scored according the percentage of synovial tissue covered by the Doppler signal. Besides, the lack ofa Doppler signal does not rule out the presence of inflammation [7]. We also have studied angiogenesis in inflammatory arthritis with angiogenesis mediators in addition to US findings [6]. In this study, synovial hypertrophy was positively correlated with angiostatin and basic fibroblast growth factor. Grey-scale data regarding effusion and synovial hypertrophy could reflect not only angiogenesis, but also negative effects of marked effusion on power Doppler signals.

In conclusion, from our clinical practice and research, we agree with the authors that a Doppler signal is more common in inflammatory arthritis, but is also available in OA to some extent. However, the data from the current article need to be handled carefully given the technical pitfalls mentioned above.

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Comment on: The value of colour Doppler sonography of the knee joint: a useful tool to discriminate inflammatory from non-inflammatory disease?: reply

SIR, we read the comment [1] on our recently published manuscript [2] and its interpretation with great interest and were surprised by the scientific critic.

First, Karadag and Aydin [1] mentioned that the scanning planes used in our study would not be suitable for

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