

Table 1 Comparison of power Doppler and spectral Doppler characteristics between 61 knee joints with superficial pattern signals and 36 knee joints with deep pattern signals of 52 patients with rheumatoid arthritis

Type of signals	Number of joints	Grades			Vascular resistance	
		Flow signals (mean (SD))	Synovial effusion (mean (SD))	Synovial proliferation (mean (SD))	RI (mean (SD))	PI (mean (SD))
Superficial pattern	61	1.680 (0.817) *	1.279 (0.552) *	1.164 (0.373) †	0.735 (0.110) *	1.622 (0.511) NS
Deep pattern	36	1.111 (0.319)	0.722 (0.566)	1.444 (0.558)	0.858 (0.119)	2.145 (1.666)

PI, pulsatility index; RI, resistance index.

* $p < 0.001$.

† $p < 0.01$.

(graded 0–3 by the previous method)⁹ and synovial proliferation of thickness ≥ 2 mm (graded 0–3 by Rubaltelli's method)¹⁰ on power Doppler, as well as RI and PI values. As shown in table 1, compared with joints with deep pattern signals, joints with superficial pattern signals had significantly higher flow signal ($p < 0.001$) and synovial effusion ($p < 0.001$) grades, and significantly lower RI values ($p < 0.001$). On the other hand, joints with deep pattern signals had a significantly higher grade of synovial proliferation ($p = 0.010$).

Authors' affiliations

Reiji Kasukawa, Kiori Shio, Yukiko Kanno, Ai Sato, Atsushi Takahashi, Takashi Kanno, Division of Rheumatology, Ohta Nishinouchi Hospital, Koriyama, Japan

Yukio Yamadera, Physiological Examination Unit, Ohta Nishinouchi Hospital, Koriyama, Japan

Competing interests: None declared.

Correspondence to: Dr R Kasukawa, 1-8 Kamikoya, Nodamachi, Fukushima 960-8055, Japan; kasu-rei-2-18@kir.biglobe.ne.jp

Accepted 21 December 2006

REFERENCES

- Newman JS, Adler RS, Bude RO, Rubin JM. Detection of soft-tissue hyperemia: value of power Doppler sonography. *Am J Roentgenol* 1994;**163**:385–9.
- Hau M, Schultz H, Tony HP, Keberle M, Jahns R, Haerten R, et al. Evaluation of pannus and vascularisation of metacarpophalangeal and proximal interphalangeal joint in rheumatoid arthritis by high resolution ultrasound (multi-Darray). *Arthritis Rheum* 1999;**42**:2303–8.
- Terslev L, Torp-Pedersen S, Qvistgaard E, Kristoffersen H, Rogind H, Dannekiold-Samsøe B, et al. Effects of treatment with etanercept (Enbrel, TNRF:Fc) on rheumatoid arthritis evaluated by Doppler ultrasonography. *Ann Rheum Dis* 2003;**62**:178–81.
- Taylor PC, Steuer A, Gruber J, Cosgrone DO, Blumley MJ, Marsters PA, et al. Comparison of ultrasonographic assessment of synovitis and joint vascularity with radiographic evaluation in a randomized, placebo-controlled study of infliximab therapy in early rheumatoid arthritis. *Arthritis Rheum* 2004;**50**:1107–16.
- Fiocco U, Ferro F, Vezzu M, Cozzi L, Checchetto C, Sfriso P, et al. Rheumatoid and psoriatic knee synovitis: clinical, gray-scale and power Doppler ultrasound assessment of the response to etanercept. *Ann Rheum Dis* 2005;**64**:899–905.
- Kanno Y, Homma F, Takahashi A, Sato A, Yamadera Y, Ohguchi Y, et al. Doppler sonographic evaluation of infliximab therapy for rheumatoid arthritis. *Mod Rheumatol* 2005;**15**:305–6.
- Shio K, Homma F, Kanno Y, Yamadera Y, Ohguchi Y, Nishimaki T, et al. Doppler sonographic comparative study on usefulness of synovial vascularity between knee and metacarpophalangeal joints for evaluation of infliximab for rheumatoid arthritis. *Mod Rheumatol* 2006;**16**:220–5.
- Fiocco U, Ferro F, Cozzi L, Vezzu M, Sfriso P, Checchetto C, et al. Contrast medium in power Doppler ultrasound for assessment of synovial vascularity: comparison with arthroscopy. *J Rheumatol* 2003;**30**:2170–6.
- Kasukawa R, Takahashi A, Yamadera Y, Takeda I, Kanno T. Two localization patterns of vascularity demonstrated by power Doppler sonography at the suprapatellar recess in knee joints of patients with rheumatoid arthritis: intracapsular and supracortical. *Mod Rheumatol* 2004;**14**:227–30.
- Rubaltelli L, Fiocco U, Cozzi L, Baldovin M, Rigon C, Bartoletto P, et al. Prospective sonographic and arthroscopic evaluation of proliferative knee joint synovitis. *J Ultrasound Med* 1994;**13**:855–62.

FORTHCOMING EVENTS

Future EULAR congresses

13–16 June 2007; EULAR 2007; Barcelona, Spain

11–14 June 2008; EULAR 2008; Paris, France
VI Meeting of the European Forum on Antiphospholipid Antibodies

12–13 October 2007, Ljubljana, Slovenia
 Informal meeting of the clinicians, scientists that are active in the field of

antiphospholipid antibodies and antiphospholipid syndrome

Vodnikova 62, 1000 Ljubljana, Slovenia

Tel: +386 1 5225533

Fax: +386 1 5225598

Email: info.apl2007@revma.net

Web: <http://www.revma.net>

CORRECTION

doi: 10.1136/ard.2006.059550.corr1

An error occurred in the March issue of the journal (Richette P, Dumontier M-F, Tahiri K, Widerak M, Torre A, Benallaloua M, et al. Oestrogens inhibit interleukin 1 β -mediated nitric oxide synthase expression in articular chondrocytes through nuclear factor- κ B impairment. *Ann Rheum Dis* 2007;**66**:345–50.) The correct spelling of the sixth author's name is Mourad Benallaoua. The online version has been amended and differs from the print version.