

**K Yonetsu, Y Takagi, M Sumi,
T Nakamura**

Department of Radiology and Cancer Biology,
Nagasaki University School of Dentistry, Japan

K Eguchi

First Department of Internal Medicine, Nagasaki
University School of Medicine, Japan

Correspondence to: Dr T Nakamura, Department of
Radiology and Cancer Biology, Nagasaki
University School of Dentistry, 1-7-1 Sakamoto,
Nagasaki 852-8588, Japan;
taku@net.nagasaki-u.ac.jp

References

- 1 **Kawamura H**, Taniguchi N, Itoh K, Kano S. Salivary gland echography in patients with Sjögren's syndrome. *Arthritis Rheum* 1990;33:505-10.
- 2 **Ariji Y**, Ohki M, Eguchi K, Izumi M, Ariji E, Mizokami A, *et al*. Texture analysis of sonographic features of the parotid gland in Sjögren's syndrome. *AJR Am J Roentgenol* 1996;166:935-41.
- 3 **Vitali C**, Bombardieri S, Moutsopoulos HM, Balestrieri G, Bencivelli W, Bernstein RM, *et al*. Preliminary criteria for the classification of Sjögren's syndrome: results of a prospective concerted action supported by the European Community. *Arthritis Rheum* 1993;36:340-7.
- 4 **Dwyer AJ**. Matchmaking and Mcnemar in the comparison of diagnostic modalities. *Radiology* 1991;178:328-30.
- 5 **Chikui T**, Yonetsu K, Nakamura T. Multivariate feature analysis of sonographic findings of metastatic cervical lymph nodes: contribution of blood flow features revealed by power Doppler sonography for predicting metastasis. *AJNR Am J Neuroradiol* 2000;21:561-7.
- 6 **Chikui T**, Yonetsu K, Izumi M, Eguchi K, Nakamura T. Abnormal blood flow to the submandibular glands of patients with Sjögren's syndrome: Doppler waveform analysis. *J Rheumatol* 2000;27:1222-8.
- 7 **Izumi M**, Eguchi K, Ohki M, Uetani M, Hayashi K, Kita M, *et al*. MR imaging of the parotid gland in Sjögren's syndrome: a proposal for new diagnostic criteria. *AJR Am J Roentgenol* 1996;166:1483-7.

**Nail lesions in psoriatic arthritis:
recovery with sulfasalazine
treatment**

Treatment with sulfasalazine has been reported to be effective in psoriatic arthritis (PsA).¹⁻³ However, the role of sulfasalazine in cutaneous lesions has been surrounded by controversies. As far as we know its possible beneficial effect on nail lesions has not been reported.

Case report

A 25 year old man had presented with nail lesions considered to be psoriatic since 1996. During the same period he started to have pain in both knee joints. Since 1998 he had also had pain in the distal interphalangeal (DIP) joints. At the end of the same year the patient consulted a rheumatologist. On clinical examination, both knee joints were swollen and a Baker's cyst was present at the right side. The 4th and 5th DIP joints of both hands were red, painful, and slightly swollen. Nail deformities were present in both hands (fig 1A) and feet. Psoriatic lesions of the auditory canals and intergluteal fold were seen, prompting the diagnosis of psoriasis *partime inversa*.

Synovial fluid from the right knee joint contained 17.8×10⁶ leucocytes/l (86% polymorphonuclear); no crystals were seen. The erythrocyte sedimentation rate was 33 mm/1st h. Rheumatoid factor was negative, as were cultures of nail specimens for fungi.

Radiographs of the hands and feet were normal. There were slight erosions of the sacroiliac joints and of the symphysis pubis.

The patient was treated with non-steroidal anti-inflammatory drugs (NSAIDs) and on several occasions with local injections of corticosteroids into the knee joints. For the psoriatic nails he took acitretine (Neotigason) at a daily dose of 20 mg, for 12 months, but the nail lesions did not improve. In view of the persisting arthritis, the patient has been treated since January 2000 with sulfasalazine (the dose being progressively increased from 0.5 g daily to 2 g daily), in addition to NSAIDs. Three months later, the nail lesions started to recede and they disappeared progressively (fig 1B); the improvement has persisted until now. Concomitantly, there was a marked improvement of the arthritis.

Discussion

Nail disease is significantly associated with PsA.⁴ It is particularly common in cases with DIP joint involvement and tends to indicate more severe PsA.⁵ In view of the close chronological relationship between the administration of sulfasalazine and the improvement of the nail lesions, it can be considered that sulfasalazine played a beneficial part in the pathological condition of our patient. Dermatological assessment of patients treated with sulfasalazine for PsA has been reported in two series; according to the report published in the series of Gupta *et al*, patients treated with sulfasalazine for PsA showed signs of cutaneous improvement compared with those receiving placebo.¹ The series of Farr *et al* reports improved cutaneous lesions in as few as 3/15 patients treated with sulfasalazine and 1/15 patients receiving placebo.² However, we could not find any indication of the evolution of possible simultaneous psoriatic nail lesions.

Treatment of PsA with cyclosporin or etanercept is effective for both joint and skin lesions of psoriasis^{6,7}; again no data about the outcome of psoriatic nail lesions were provided in these clinical studies. Our case report might be the occasion to draw the attention of rheumatologists to the possible beneficial effects of basic treatment such as sulfasalazine not only for PsA but also for treating psoriatic nails.

J C Gerster

Service de Rhumatologie, Médecine Physique et
Réhabilitation, Centre Hospitalier, Universitaire
Vaudois (CHUV), 1011 Lausanne, Switzerland;
Jean-Charles.Gerster@chuv.hospvd.ch

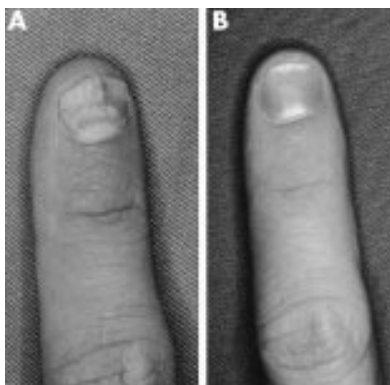


Figure 1 Left index finger (A) before, (B) after six months' treatment with sulfasalazine. The nail deformities in both hands are no longer present.

D Hohl

Service Universitaire de Dermatologie, CHUV,
1011 Lausanne, Switzerland

References

- 1 **Gupta AK**, Grober JS, Hamilton TA, Ellis CN, Siegel MT, Voorhees JJ, *et al*. Sulfasalazine therapy for psoriatic arthritis: a double blind, placebo controlled trial. *J Rheumatol* 1995;22:894-8.
- 2 **Farr M**, Kitas GD, Waterhouse L, Jubb R, Felix-Davies D, Bacon PA. Sulphasalazine in psoriatic arthritis: a double-blind placebo-controlled study. *Br J Rheumatol* 1990;29:46-9.
- 3 **Goupille P**, Valat JP. Sulfasalazine: a definitively efficient treatment for psoriatic arthritis. *J Rheumatol* 1996;23:791-2.
- 4 **Eastmond CJ**, Wright V. The nail dystrophy of psoriatic arthritis. *Ann Rheum Dis* 1979;38:226-8.
- 5 **Jones SM**, Armas JB, Cohen MG, Lovell CR, Evison G, McHugh NJ. Psoriatic arthritis: outcome of disease subsets and relationship of joint disease to nail and skin disease. *Br J Rheumatol* 1994;33:834-9.
- 6 **Steinsson K**, Jonsdottir I, Valdimarsson H. Cyclosporin A in psoriatic arthritis: an open study. *Ann Rheum Dis* 1990;49:603-6.
- 7 **Mease PJ**, Goffe BS, Metz J, VanderStoep A, Finck B, Burge DJ. Etanercept in the treatment of psoriatic arthritis and psoriasis: a randomised trial. *Lancet* 2000;356:385-90.

**Home sequential high dose
intravenous immunoglobulins in
systemic autoimmune disease**

The high cost of IV immunoglobulins is often considered to be a disadvantage of this treatment. However, this does not take into account the benefits gained—for example, the savings achieved in the costs of corticosteroids and immunosuppressive drugs and, above all, the improvement in quality of life achieved through functional improvement, as noticed in inflammatory myopathies and Still's disease.¹⁻³ It is precisely to minimise the costs of IV immunoglobulin treatments and to enable patients to remain at home that we have developed the administration of IV immunoglobulins at home when sequential treatments are necessary.

Between January 1995 and March 2000 30 patients (18 women, 12 men) were enrolled, with a mean (SD) age of 44 (0.9) for the women and 51 (0.9) years for the men (range 21-74). All the patients had received the first two treatments in hospital to ascertain their tolerance. Patients mostly received Tégéline (314 treatments), Endobuline (81 treatments), and Gammagard (three treatments). All the patients had a corticoid dependent or refractory autoimmune disease (mostly polymyositis, dermatomyositis, and adult onset Still's disease).

The doses prescribed for each treatment were generally 2 g/kg. Treatments were carried out monthly and consisted of two days when performed in hospital and five days when performed at home. The average flow rate of the IV immunoglobulin perfusions performed at home was 10 g/2 h (extreme values: 30 min-4 h). The secondary effects of the treatments at home remained conventional and minor.

The efficacy of the IV immunoglobulin was described by the patients as very good 17%, good 33%, modest 3%, nil 47%. The efficacy of the IV immunoglobulin was described by the senior doctor as very good 53%, good 30%, nil 17%. Evaluation of the efficacy described by the patients themselves was based on purely functional criteria (general condition, pain,

Table 1 Evaluation of the cost of at home IV immunoglobulin treatments (n=277) and comparison with the theoretical cost in hospital

Mean costs for one treatment					
IV immunoglobulin	24 h hospital stay with hospital lump sum	Small equipment	Nursing	Total cost for 277 treatments	Savings achieved for 277 treatments
<i>Theoretical cost in hospital</i> \$2055 (deduction on drug budget)	\$605	\$41 (deduction on small equipment budget)	0	\$748274	\$580556 (representing the virtual economy made by the hospital department (drug budget + small equipment))
Cost for one treatment in hospital : \$2701					
<i>Effective cost at home</i> \$2363 (15% of retrocession overcost*)	0	\$41	\$67	\$684588	<ul style="list-style-type: none"> ● \$63691 (representing the effective savings for the community) ● \$85377 (representing the budget income for the hospital administration)
Cost for one treatment at home: \$2471					

*In France when a drug is retroceded by a hospital pharmacy, it is invoiced 15% higher, the difference being paid to the hospital administration to cover the management and traceability costs.

muscular deficit, etc), which explains the difference between the two evaluations. Cases where the IV immunoglobulin resulted in a reduced use of corticosteroids, or cases where IV immunoglobulins made it possible to avoid using immunosuppressive drugs were regarded as a success by the senior doctor, whereas patients did not necessarily have the same impression.

The 23 patients (77%) who said they had benefited from the IV immunoglobulin treatments at home gave the following reasons: better comfort (n=12), presence of next of kin (n=10), more occupation (n=6), time gain (n=5), better mood (n=3), maintaining activities (n=3), avoiding repeated trips to the hospital (n=3), better quality of sleep (n=2), better food (n=2). The seven patients (23%) who preferred the treatments at the hospital gave the following reasons: better monitoring, less trouble (IV immunoglobulin collected at the hospital pharmacy, calling the nurse at home, collection of tubes, needles, and perfusion stand at the pharmacy and at home).

The mean cost of a treatment in hospital was \$2701 against \$2471 for a treatment at home. The difference seems to be modest, yet for the 277 treatments performed at home over five years, the savings for the community amount to \$63 691 with \$85 377 of budget revenues for the hospital (the 15% increase is in fact invoiced by the hospital administration for

management and traceability costs). By this procedure, we have achieved a virtual economy on our drug budget and small equipment of \$580 556 in the past five years (table 1).

In the light of our experience and published reports of side effects,⁴⁻⁸ we propose some guidelines for home IV immunoglobulin infusion for patients with autoimmune disease (table 2). This procedure is appreciated by the patients and medical board and contributes to balancing the expenses for the National Health System.

Acknowledgments

To Monique Tomczak who typed this document; Thomas Rémy, Bernard Dauvergne, and Mazen Elzaabi (Laboratoire français du fractionnement et des biotechnologies, 3 avenue des Tropiques, BP 305, Les Ulis, 91958 Courtaboeuf cedex) who helped us with the technical aspect of this study.

E Hachulla, A Wibaux, P-Y Hatron, U Michon-Pasturel, V Queyrel, A-L Fauchais, B Devulder

Internal Medicine Department, Hôpital Claude Huriez, University of Lille, 59037 Lille cedex, France

M-N Lefebvre, M Yilmaz

Central Pharmacy, University of Lille

Correspondence to: Professor E Hachulla, Internal Medicine Department, Hôpital Claude Huriez, University of Lille, 59037 Lille cedex, France; ehachulla@chru-lille.fr

References

- Chérin P, Herson S, Wechsler B, Piette JC, Bléry O, Coutelier A, et al. Efficacy of intravenous gammaglobulin therapy in chronic refractory polymyositis and dermatomyositis: an open study with 20 adult patients. *Am J Med* 1991;91:162-8.
- Chérin P, Piette JC, Wechsler B, Bléry O, Ziza JM, Larak R, et al. Intravenous gamma globulin as first line therapy in polymyositis and dermatomyositis: an open study in 11 adult patients. *J Rheumatol* 1994;21:1092-7.
- Permal S, Wechsler B, Cabane J, Perrot S, Blum L, Imbert JC. Traitement de la maladie de Still de l'adulte par immunoglobulines intraveineuses. *Rev Med Interne* 1995;16:250-4.
- Elkayam O, Paran D, Milo R, Davidovitz Y, Almozino-Sarafian D, Zeltser D, et al. Acute myocardial infarction associated with high dose intravenous immunoglobulin infusion for autoimmune disorders. A study of four cases. *Ann Rheum Dis* 2000;59:77-80.
- Sztajzel R, Le Floch-Rohr J, Eggimann P. High-dose intravenous immunoglobulin treatment and cerebral vasospasm: a possible mechanism of ischemic encephalopathy? *Eur Neurol* 1999;41:153-8.
- Chatot-Henry C, Smadja D, Mehdaoui H, Fournier P, Drault JN, Brebion A, et al. Insuffisance rénale aiguë et infarctus cérébral au cours d'un traitement par immunoglobulines intraveineuses à fortes doses. *Rev Med Interne* 1998;19:914-16.
- Reinhart WH, Berchtold PE. Effect of high-dose intravenous immunoglobulin therapy on blood rheology. *Lancet* 1992;14:662-4.
- Go RS, Call TG. Deep venous thrombosis of the arm after intravenous immunoglobulin infusion: case report and literature review of intravenous immunoglobulin-related thrombotic complications. *Mayo Clin Proc* 2000;75:83-5.

Elastofibroma dorsii

Elastofibroma is a rarely diagnosed benign fibroproliferative lesion which occurs most commonly in the periscapular region of middle aged to elderly women.¹ Recognition of the lesion is important as the differential diagnosis includes other benign and also

Table 2 Home IV immunoglobulin infusion guidelines for patients with autoimmune disease

1.	Need for a defined diagnosis
2.	Presence of rational pathophysiological basis that could "legitimise" the use of IV immunoglobulin
3.	Senior hospital prescription
4.	Respect of the contraindication of home IV immunoglobulin programme: coronaropathy, insufficiency or ischaemic cardiopathy, recent stroke, nephropathy, uncontrolled hypertension, thrombosis of the perfused vein; hypersensitivity reaction after the first or second hospital infusion
5.	More than one hospital based infusion before infusion at home to assess the tolerance
6.	Average flow rate of IV immunoglobulin no quicker than 10 g per two hours
7.	Collaboration with a home care organisation for visiting nurses and for collection of tubing and used bottles