Association Between Vitiligo and Spondyloarthritis

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ABSTRACT. ***Objective.*** To establish if spondyloarthritis (SpA) and vitiligo occur together more frequently than by chance.

Methods. All consecutive patients with SpA seen in a 6 month period were evaluated for vitiligo by an experienced dermatologist. The control group included the 2 consecutive patients without SpA seen after each patient with SpA.

Results. Two hundred thirty-four patients with SpA (131 men, 103 women; mean age 59 ± 18.3 yrs) were seen in the study period. Of these, 43 had ankylosing spondylitis (AS), 112 psoriatic arthritis (PsA), 14 SpA associated with inflammatory bowel disease, 64 undifferentiated SpA, and one reactive arthritis. The 468 control patients (360 women, 108 men; mean age 68.5 ± 2 yrs) had various degenerative and inflammatory rheumatic diseases. Eight (3.4%) patients out of 234 with SpA had type A vitiligo. In the control group, 5 (1.06%) out of 468 had type A vitiligo. The difference was statistically significant ($p < 0.05$). Of the 8 patients with coexisting vitiligo and SpA, 4 had PsA, 2 primary AS, one AS associated with Crohn's disease, and one undifferentiated SpA. Of the 5 patients with vitiligo in the control group, one had rheumatoid arthritis, one Sjögren's syndrome, one palindromic rheumatism, one crystal arthropathy, and one osteoarthritis.

Conclusion. Our results suggest that vitiligo and SpA do not coexist by chance and that vitiligo should be included in the list of diseases associated with SpA. (J Rheumatol 2001;28:313–4)

Key Indexing Terms:
SPONDYLOARTHROPATHIES PSORIATIC ARTHRITIS VITILIGO

Vitiligo is a common disorder afflicting 1 to 2% of the general population worldwide without racial, sex, or regional differences[1].

Children with vitiligo are usually healthy[2]. Vitiligo in adults has been linked with an increased incidence of autoimmune diseases such as alopecia areata, diabetes mellitus, pernicious anemia, Addison's disease, Hashimoto's thyroiditis, and Vogt-Koyanagi-Harada syndrome[1,3]. Vitiligo may also be part of a polyglandular autoimmune syndrome, which may include selective IgA deficiency[4].

In the last few years we came across some patients with coexisting vitiligo and spondyloarthritis (SpA) in the Pisa and Bologna Rheumatic Disease Units. We investigated whether the 2 diseases occur together more frequently than by chance, examining a new series of patients with SpA.

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MATERIALS AND METHODS

All consecutive patients with SpA meeting the European Spondylarthropathy Study Group (ESSG)[5] and/or the Amor criteria[6] seen in a 6 month period in the Rheumatology Department of Lucania were evaluated for the presence of type A or B vitiligo[1] by an experienced dermatologist. The control group included the 2 consecutive patients with rheumatological disorders other than SpA seen after each patient with SpA.

Each patient with SpA was also diagnosed according to the criteria for the different entities. For the diagnosis of ankylosing spondylitis (AS) the modified New York criteria were used[7]. Patients with psoriatic arthritis (PsA) and reactive arthritis (ReA) met the Moll and Wright criteria[8] and the Berlin 1995 criteria[9], respectively. Patients with Crohn's disease and ulcerative colitis had a biopsy proved diagnosis. Patients not meeting criteria for the definite entities were considered to have undifferentiated SpA. Statistical analysis was by chi-squared test. A p value < 0.05 was considered statistically significant.

RESULTS

Two hundred thirty-four patients with SpA (131 men, 103 women; mean age 59 ± 18.3 yrs) and 468 control patients (108 men, 360 women; mean age 68.5 ± 2.1 yrs) were seen in the study period.

Of the patients with SpA, 43 had primary AS, 112 had PsA, 14 had SpA associated with inflammatory bowel disease, 64 had undifferentiated SpA, and one had ReA. The 468 control patients had various degenerative and inflammatory rheumatic disorders (Table 1).

Eight (3.4%) patients of 234 with SpA were found to have type A vitiligo. In the control group, 5 (1.06%) of 468 had type A vitiligo. None of the 13 patients with vitiligo had type B vitiligo or clinical or laboratory evidence of autoimmune thyroid disease.

Table 1. Diseases of the control patients.

Diagnosis	No. of Patients
Osteoarthritis	146
Rheumatoid arthritis	69
Polymyalgia rheumatica	41
Soft tissue rheumatism	39
Fibromyalgia	34
Connective tissue disorders	23
Crystal arthropathies	19
Carpal tunnel syndrome	16
Osteoporosis	8
Sjögren's syndrome	1
Others	72

Of the 8 patients with coexisting vitiligo and SpA, 4 had PsA, 2 primary AS, one AS associated with Crohn's disease, and one undifferentiated SpA.

Of the 5 patients with vitiligo in the control group, one had rheumatoid arthritis, one Sjögren's syndrome, one palindromic rheumatism, one crystal arthropathy, and one osteoarthritis.

The difference in the frequency of vitiligo between the 2 groups was statistically significant ($p < 0.05$).

DISCUSSION

Vitiligo is very common among people of all ages all over the world[1]. It produces milky white patches of depigmentation that often cause aesthetic alteration and psychological problems. There are 2 common types of vitiligo, showing differences in the clinical manifestations and course. Nonsegmental vitiligo (type A) is about 3 times more common than segmental vitiligo (type B). This latter is generally more common among pediatric patients. It usually has an early onset, rapidly spreads into the involved dermatome, becomes stable in a few years, and persists for a lifetime. On the contrary, type A vitiligo develops during the adult patient's life, with new lesions appearing in a symmetrical pattern.

In adults type A vitiligo has been found in association with a variety of autoimmune diseases including alopecia areata, diabetes mellitus, pernicious anemia, Addison's disease, Hashimoto's thyroiditis, Vogt-Koyanagi-Harada syndrome, and polyglandular autoimmune syndrome[1,3,4].

The SpA complex includes interrelated diseases such as ankylosing spondylitis, Reiter's syndrome and reactive arthritis, psoriatic arthritis, arthritis associated with inflammatory bowel disease, and forms that fail to meet criteria for definite categories, which are called undifferentiated[10-12].

In the last few years we observed some patients with coexisting SpA and vitiligo and we wondered if the 2 diseases may occur together more frequently than by chance. We performed Medline research into the English literature available and were not able to find any reported case. However, we found some cases of the coexistence of vitiligo with psoriasis and/or inflammatory bowel disease, which are part of the SpA complex[13-15].

To establish the relationship between vitiligo and SpA we decided to study a new consecutive series of patients with SpA and a suitable number of consecutive control patients for vitiligo. Of the 234 patients with SpA seen in the study period, 8 (3.4%) had type A vitiligo. In contrast, among the 468 control patients only 5 (1.06%) had type A vitiligo. The difference between the 2 groups was statistically significant ($p < 0.05$). It should be emphasized that the statistical significance could have been higher if the control group had included only patients with degenerative rheumatic diseases. In fact, among the 5 control patients with vitiligo, there were 3 subjects with rheumatoid arthritis, Sjögren's syndrome, and palindromic rheumatism, respectively, which are considered "autoimmune" diseases. The coexistence of these diseases with vitiligo may not be accidental.

Our results suggest that vitiligo and SpA do not coexist by chance and that vitiligo should be included in the list of diseases associated with SpA.

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