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Cutaneous Comorbidity In Patients With Seborrhoeic Dermatitis

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ABSTRACT

Seborroheic dermatitis is one of the commonest dermatological disorders affecting up to 5 % of the population worldwide, yet its pathogenesis is still unknown. Although this disorder has high prevalence and affects socially important parts of the skin like face and scalp large studies on its epidemiology and comorbidity are not conducted. The purpose of our study was to evaluate the prevalence of comorbid skin conditions in seborhhoeic dermatitis patients. 225 patients with clinically manifested seborrhoeic dermatitis were examined clinically for presence of other cutaneous disorders. The data was compared with a control group of 120 healthy subjects and 1215 consecutive dermatological outpatients. 62% of patients with seborrheic dermatitis showed skin comorbidites. Most common associated with seborrheic dermatitis conditions were acne, extragenital warts, onychomycoses and contact dermatitis. Compared with control groups most significant was the difference in prevalence of HPV infection manifestations. This result suggests common pathological mechanisms in both conditions. Interestingly our study did not show Malassezia-caused conditions to be more frequently found in patients with seborrheic dermatitis. The comorbidity with psoriasis, dyshidrosis, rosacea and mycotic infections of the skin was comparable with that found in the control groups. Furthermore patients with seborrhoeic dermatitis showed higher prevalence of alopecia areata and small plaque parapsoriasis, but largers studies are needed to confirm the significance of these results.

Keywords: seborrheic dermatitis, comorbidity, HPV, small plaque parapsoriasis, alopecia areata

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INTRODUCTION

Seborrheic dermatitis is a chronic erythemo-squamous disorder affecting 1-5 % of the population /1,2,3 /. Skin lesions are localised in sebum-rich areas like scalp, face, chests, back and rarely skin folds. Factors suspected to play role in the pathogenesis of the disease include Mlassezia spp. yeasts, abnormal sebaceous secretion, dysfunction of skin immunity, neurological disorders and defective skin barrier function / 4,5,6 /. Some authors state that seborheic dermatitis is incurable condition which can be only controlled by local or systemic medications. Research of cutaneous comorbidity of patients with seborrheic dermatitis may contribute to elucidating the pathological mechanisms of the disease and development of new therapeutic approaches.

The aim of our study was to investigate the cutaneous comorbidities in patients with seborrheic dermatitis. To compare the established comorbidity with healthy controls and a large group of dermatological outpatients

MATERIALS AND METHOD

We examined 225 patients with exacerbated seborrheic dermatitis from 16 to 90 years of age for the period from 2011 to 2016. In the study we enrolled only patients for whom seborrheic dermatitis was the main dermatological complain. The Age-Sex Structure of the examined patients is shown in table 1. The average age of this group of patients (Group A) was 37,73.

Table 1: Age/sex structure of group A (225 patients with seborrheic dermatitis)

Age groups	**16-30**	**31-40**	**41-50**	**51-60**	**61-70**	**>71**	**Overall**
Females	42	18	12	11	8	5	96
Males	56	30	19	9	8	7	129
Oveall	98	48	31	20	16	12	225
	(43,6%)	(21,3%)	(13,7%)	(8,9%)	(7,2%)	(5,3%)	

The data was compared with a control group of 120 healthy subjects visiting dermatologist's office for medical certificates and for examination of benign skin tumors like cherry hemangiomas, melanocytic nevi and seborrheic keratoses. The individuals were chosen so, that the Age-Sex Structure of this group would resemble that of Group A. (Table 2).

Table 2 Age/sex structure of group B (120 healthy subjects)

Age groups	**16-30**	**31-40**	**41-50**	**51-60**	**61-70**	**>71**	**Overall**
Females	22	10	6	6	4	3	51
Males	30	16	10	5	4	4	69
Overall	52	26	16	11	8	7	120
	(43%)	(22%)	(13%)	(9%)	(7%)	(6%)	

The established percentage of comorbid skin conditions was compared with the prevalence of the same diseases in 1215 consecutive dermatological outpatients who were examined from March 2015 to March 2016 (Group C). Table 3 shows the distribution of the investigated

males and females into 7 age categories. The skin morbidity of children was also taken into consideration, so the average age in this group of patients is slightly lower- 34,4.

Table 3 Age/sex structure of the group C (1215 consecutive dermatological outpatients)

Age groups	**0-16**	**16-30**	**31-40**	**41-50**	**51-60**	**61-70**	**>71**	**Overall**
Females	120	157	149	56	87	47	56	672
Males	149	97	72	87	78	35	25	543
Overall	269 (22%)	254 (21,9%)	221 (18%)	143 (11,6%)	165 (13,5%)	82 (6,5%)	81 (6,5%)	1215

RESULTS AND DISCUSSION

Cutaneous comorbidity was found in 134 (62%) of patients with seborrheic dermatitis. The most common skin conditions in these patients were acne (24 patients), extragenital HPV infection manifestations (flat, filiform warts on face and neck, common warts palmar and plantar warts - 21patients), onychomycosis (11 patients) and contact dermatitis (9 patients). Less frequently were found as comorbid states pitiriasis versicolor, psoriasis vulgaris, rosacea, dyshidrosis and mycotic infections of flat skin (in 5 patients each). Interestingly 8 of the examined patients had alopecia areata and 4 presented with small plaque parapsoriasis which is considered as a rare skin disorder /7/.

Table 4 shows the comparison of the number and percentage of the found skin disorders between the three studied groups of patients.

Table 4 Number and percentage of skin disorders found in the three studied groups of patients

Disease	**Group A –Patients with seborrheic dermatitis**	**Group B – Healthy controls**	**Group C (1215 dermatology outpatients)**
Acne	24 (10,6%)	8 (6,7%)	79 (6,5%)
Contact dermatitis	9 (4%)	3 (2,5%)	100 (8,2%)
Extragenital HPV manifestations	21 (9%)	6 (5%)	34 (2,8%)
Onychomycosis	11 (4,8%)	5 (4,2%)	44 (3,6%)
Pityriasis versicolor	5 (2,2%)	3 (2,5%)	54 (4,5%)
Psoriasis vulgaris	5 (2,2%)	-	69 (5,7%)
Rosacea	5 (2,2%)	1(0,8%)	16 (1,3%)
Dyshidrosis	5 (2,2%)	-	23 (1,9%)
Mycotic skin infection	5 (2,2%)	2 (1,7%)	56 (4,6%)
Lichen simplex chronicus	7 (3%)	-	9 (0,7%)
Small plaque parapsoriasis	4 (1,7%)	-	2 (0,2%)
Alopecia areata	8 (3,5%)	-	11 (0,9%)
Atopic dermatitis	2 (0,8%)	-	26 (2,1%)

The frequency of dyshidrosis, rosacea and mycotic infections of skin do not differ significantly between the three studied groups.

The established high percentage of association of seborrheic dermatitis and acne is expected and is mentioned in the relevant literature /7 /. As seborrhoea is thought to be a crucial factor for the appearance of seborrheic dermatitis the small number of patients with atopic dermatitis in group A is also a logical finding.

Interestingly according to our data there is no higher prevalence of Malassecia associated conditions (like pityriasis versicolor) in patients with seborrheic dermatitis , as such association was founds in previous studies /8 /. Furthermore these patients show significantly higher percentage of HPV infection compared with the two control groups (9% compared with 5% and 2,8% respectively). This fact prompts speculations whether common immunological dysfunction predisposes patients to both skin conditions.

Most unexpected result is the high prevalence of alopecia areata and small plaque parapsoriasis in patients with seborrheic dermatitis. According to pertinent literature there are no accurate statistics on the frequency and incidence of parapsoriasis, and yet it is considered a rare condition /8 /. For alopecia areata the estimated prevalence is 0,1-0,2% of the general population /9/. Further investigations of this correlation are needed for more well-grounded conclusions.

CONCLUSION

In our study we identified acne, warts, onyhomycoses and contact dermatitis as more common comorbid conditions in patients with seborrhoeic dermatitis. Compared with control groups of healthy subjects and dermatological outpatients it was found that these patients show higher prevalence of extragenital warts, alopecia areata and small plaque parapsoriasis. Further studies are needed to confirm the significance of these findings.

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