

Hidradenitis Suppurativa Influences Tattooing Practice in Women

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Keywords

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Abstract

Background: The reasons or the motivations that compel people to get a tattoo or a body piercing (BP) are plentiful and personal. Patients with chronic cutaneous or systemic conditions may be interested in getting tattooed or pierced.

Objective: To determine the frequency of body art practices in hidradenitis suppurativa (HS) and to evaluate the possible impact of HS in the decision-making process. **Methods:** An anonymous specific paper-based questionnaire was prospectively offered to patients (≥ 18 years) consecutively managed for HS from September 2016 to March 2017 in a French specialized center. **Results:** In total, 209 patients participated in the study, of whom 77 (37%) and 50 (24%) had tattoos and BP, respectively. These proportions were higher than those reported in the French population. HS prevented the decision to get a BP or a tattoo in 2 and 5%, respectively (fear of infection or healing difficulties). Fifteen patients (7%) got tattooed to hide a surgical HS scar ($n = 5$, 2%), to regain control over the pain or their bodies ($n = 9$, 4%), or to turn

others' eyes away from HS lesions or scars ($n = 1$, 0.5%). HS severity influenced a proportion of patients who intended to get a new tattoo. **Conclusion:** HS is associated with a significant increase in body art practices. © 2020 S. Karger AG, Basel

Introduction

Body art has gained tremendous popularity over the past 20 years among the general population [1, 2]. The motivations for getting a tattoo or a body piercing (BP) are plentiful and personal [3, 4]. Tattooing can improve one's body image and have a bolstering effect [5]. Nowadays patients with chronic cutaneous or systemic conditions may be interested in getting a tattoo or BP. The reasons or the motivations that compel them to get one may or may not be related to their conditions [6, 7].

In the present study, we aimed to determine the frequency of body art practices (tattooing and BP) in a cohort of French patients with hidradenitis suppurativa (HS) and to evaluate the impact of HS in the decision-making process.

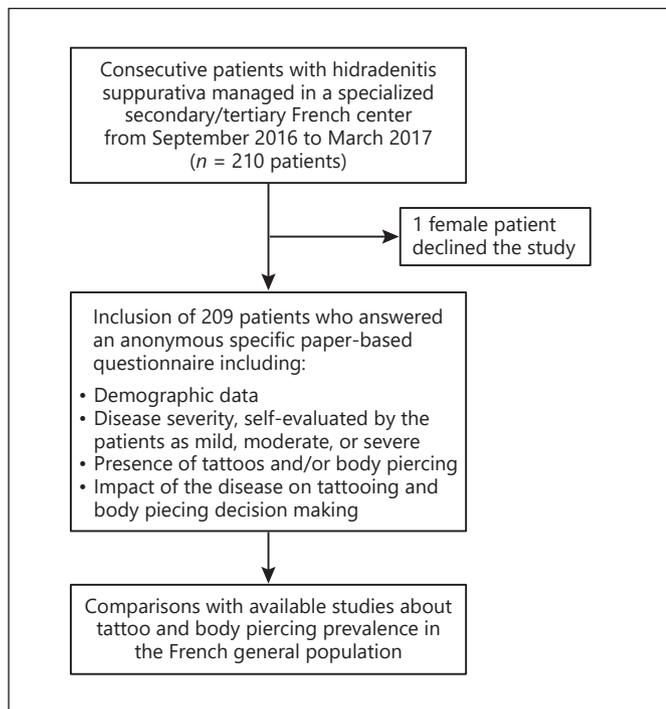


Fig. 1. Flowchart of Materials and Methods. Design of the study.

Materials and Methods

For further details, see the online Supplementary Material (see www.karger.com/doi/10.1159/000504436) (Fig. 1).

Results

Prevalence of Tattoos and BP in HS Patients

Only 1 woman declined the invitation to fill in the questionnaire. We therefore analyzed the responses from 209 patients (140 women, 67%) with a mean age of 33 ± 9 years (range 18–63). The mean age at the disease onset was 21 ± 8 years (range 5–55). The disease was classified as mild, moderate, and severe by 20, 44, and 36% of the patients, respectively.

The overall prevalence of tattoos and BP were 37% ($n = 77$) and 24% ($n = 50$), respectively. Near half of the patients ($n = 102$, 49%) were tattooed and/or pierced. None of the patients reported any complication in relation to their tattoo(s) or BP. When compared to the French general population [8–13], patients with HS had tattoos and BPs more frequently, regardless of gender and age (Table 1). Tattooing and BP prevalence among HS patients also appeared higher than in other skin diseases (Table 2) [12, 13].

Of the 77 patients with tattoos, 50 (65%) got tattooed before the onset of the disease. Furthermore, 45 of the 50 patients with BP (90%) had it/them placed before disease onset.

Both practices were statistically more frequent in women (44 and 31%) than in men (22 and 9%, $p < 0.001$). Tattoos were more frequent in the age group 35–49 years (44%) than in the others, while BP was more frequent in the age group 25–34 years (31%; Table 3), but there was no statistical significance. Neither tattooing nor BP was influenced by age at disease onset or disease severity.

The Influence of HS on Tattoo and BP Decision Making

HS influenced the decision to get a BP in 4 patients (2%), who reported that HS prevented them from getting a BP because of the fear of infection, HS flare-up, or abnormal scarring. They all reported their disease as severe; none of the patients with mild or moderate disease reported HS influence on BP practice ($p = 0.042$).

HS influenced the decision to get a tattoo in 26 patients (12%): 10 gave up their wish to get tattooed (fear of infection, flare or scarring), while on the other hand 15 (7%) got tattooed to hide a surgical HS scar ($n = 5$, 2%), to regain control over the pain or their bodies ($n = 9$, 4%), or to turn others' eyes away from HS lesions or scars ($n = 1$, 0.5%). None of the patients with a mild disease reported an influence of HS on tattooing practice compared to 11 and 20% of the patients with moderate and severe disease, respectively ($p = 0.003$).

HS influenced the choice of the tattoo placement on the body for 27 patients (13%): 16 (8%) chose a place spared by the disease, 10 (5%) placed a tattoo on a HS surgery scar, and 1 aimed to make the HS-related tattoo very visible. HS influenced the tattoo placement for 2.5, 9, and 23% of the patients with mild, moderate, and severe disease, respectively ($p = 0.003$).

Ten patients (5%) chose a design in relation to the disease: 2 to efficiently hide a surgical scar, 1 one to depict the disease itself, 3 to represent the hope of a remission, 3 without any color to represent disease darkness, and 1 to represent the loss of freedom due to HS. HS influenced the tattoo design for 2.5, 9, and 23% of the patients with mild, moderate, and severe disease, respectively ($p = 0.003$).

At the time of the questionnaire, 42 of the 209 patients (20%) were considering getting a tattoo in the more or less long term. Among them 22 were not already tattooed. The proportion of non-tattooed patients who were considered getting a tattoo later was 16.7% (22 out of 132 pa-

Table 1. Prevalence of tattoos and body piercing in 209 patients with hidradenitis suppurativa and comparison with the French general population

Author [ref.], year	Study year	Methods	Subjects, <i>n</i>	Prevalence, %						
				whole cohort	men	women	18–24 years	25–34 years	35–49 years	50– years
<i>Tattooing</i>										
Fourquet [8], 2010	2010	National representative phone interview*	958	10	11	9	8	20	12	<5
Guéguen [11], 2013	2011	Students from 4 public universities	2,587	18	13	24	–	–	–	–
Fourquet and Dubrulle [9], 2016	2016	National representative online interview*	1,002	14	11	17	26	27	20	<7
Kluger et al. [13], 2019	2017	National representative online interview	5,000	17	14	19	23.5	24	21	8
Fourquet and Dubrulle [10], 2018	2018	National representative online interview*	1,013	18	16	20	22	31	26	<10
Our study	2017	HS patients	209	37 ^a	22 ^b	44 ^c	36 ^d	35 ^d	44 ^e	23.5 ^f
<i>Body piercing</i>										
Guéguen [11], 2013	2011	Students from 4 public universities	2,587	15	7	24	–	–	–	–
Kluger et al. [12], 2019	2017	National representative online interview	5,000	12	8	15	23	26	11	4
Our study	2017	HS patients	209	24 ^a	9 ^g	31 ^h	22 ^d	31 ^d	16 ^d	18 ⁱ

* The exact number of patients in each category is unavailable in these studies, preventing statistical comparisons when considering prevalence in men, women, and each age group. ^a $p < 0.001$ when compared to any of the other cohorts. ^b No significant difference when compared to the 2017 cohort and $p = 0.037$ when compared to the 2011 cohort. ^c $p < 0.001$ when compared to the 2011 cohort or to the 2017 cohort. ^d No significant difference when compared to the 2017 cohort. ^e $p < 0.001$ when compared to the 2017 cohort. ^f $p = 0.040$ when compared to the 2017 cohort. ^g No significant difference when compared to the 2011 cohort or to the 2017 cohort. ^h $p = 0.001$ when compared to the 2017 cohort and no significant difference when compared to the 2011 cohort. ⁱ $p = 0.026$ when compared to the 2017 cohort.

Table 2. Prevalence of tattoos and body piercing in patients with hidradenitis suppurativa and other skin diseases

Skin diseases	Prevalence of tattoos in the French general population ¹ , <i>n</i> (%)	Comparison with prevalence of tattoos in our HS series ($n = 77/209$, 36.8%), <i>p</i> value	Prevalence of BP in the French general population ² , <i>n</i> (%)	Comparison with prevalence of BP in our HS series ($n = 50/209$, 23.9%), <i>p</i> value
Acne vulgaris	115/523 (22.0)	<0.001	112/523 (21.4)	0.460
Contact eczema	69/254 (27.2)	0.026	57/254 (22.4)	0.706
Psoriasis	45/244 (18.4)	<0.001	27/244 (11.1)	<0.001
Atopic dermatitis	41/185 (22.2)	0.001	37/185 (20.0)	0.349
Rosacea	29/187 (15.5)	<0.001	25/187 (13.4)	0.007
Vitiligo	5/23 (21.7)	0.150	1/23 (4.3)	0.031

¹ According to a French national representative online survey [13]. ² According to a French national representative online survey [12].

Table 3. Characteristics of 209 patients with hidradenitis suppurativa according to the presence of tattoos and/or body piercings

	<i>n</i>	Tattoos			Body piercings		
		no	yes	<i>p</i> value	no	yes	<i>p</i> value
Total	209	132 (63)	77 (37)		159 (76)	50 (24)	
Gender				0.001			<0.001
Females	140	78 (56)	62 (44)		96 (69)	44 (31)	
Males	69	54 (78)	15 (22)		63 (91)	6 (9)	
Age, years	33±9	33±10	33±9	0.673	33±10	31±9	0.258
Age groups				0.405			0.173
18–24 years	45	29 (64)	16 (36)		35 (78)	10 (22)	
25–34 years	86	56 (65)	30 (35)		59 (69)	27 (31)	
35–49 years	61	34 (56)	27 (44)		51 (84)	10 (16)	
≥50 years	17	13 (76)	4 (24)		14 (82)	3 (18)	
Age at first disease onset, years	21±8	21±8	20±8	0.526	21±8	21±8	0.476
Disease severity				0.724			0.695
Mild	40	26 (65)	14 (35)		32 (80)	8 (20)	
Moderate	89	58 (65)	31 (35)		65 (73)	24 (27)	
Severe	74	44 (59)	44 (41)		56 (76)	18 (24)	

Data are presented as *n* (%) or mean ± standard deviation, as appropriate.

Table 4. Characteristics of 209 patients with hidradenitis suppurativa according to the intent to get a tattoo or not

	A (new) tattoo planned		
	no	yes	<i>p</i> value
Total	167 (80)	42 (20)	
Gender			0.293
Females	109 (78)	31 (22)	
Males	58 (84)	11 (16)	
Age, years	33±10	30±7	0.031
Age groups			0.039
18–24 years	33 (73)	12 (27)	
25–34 years	65 (76)	21 (24)	
35–49 years	52 (85)	9 (15)	
≥50 years	17 (100)	0 (0)	
Age at first disease onset, years	21±8	21±7	0.798
Disease severity			0.046
Mild	37 (93)	3 (7)	
Moderate	71 (80)	18 (20)	
Severe	54 (73)	20 (27)	

Data are presented as *n* (%) or mean ± standard deviation, as appropriate.

tients), which was significantly higher than the 6% proportion reported in one national representative survey (52/862, $p < 0.001$) [8] and not different from the 16% proportion reported in another one (160/1,002) [9]. Overall, 99 patients (47%) got a tattoo and/or considered getting one. Patients who declared the intent to get a (new) tattoo were significantly younger (Table 4). This intent was also related to the severity of the disease – the worse the disease, the more frequent the intent: 7% of the patients with Hurley I disease planned a new tattoo compared to 27% in the Hurley III patients ($p = 0.046$). Five patients (2%) were considering getting a BP; 3 out of them did not have any BP yet. Overall, 53 patients (25%) got a BP and/or considered getting one. The 5 patients considering getting a BP were not significantly different from the others (data not shown).

Discussion/Conclusion

HS usually affects patients broadly aged between 20 and 40 years [14–16], which is the very same age group with the highest interest in body art practices [1, 2]. It should not come as a surprise that some HS patients may show interest in getting tattooed or pierced. Even though head-to-head comparison is not possible and acknowl-



Fig. 2. Some examples of tattoos in patients with hidradenitis suppurativa. **a** A tattoo on the inner wrist of a 24-year-old woman, who considers the fox as a symbol of the freedom she lost because of her disease. **b** A tattoo on the inner forearm of a 25-year-old woman. “Paciência” is the Spanish word for “patience”, a quality this HS patient developed to face disease flares. The triangles are the symbol of the part of femininity she lost because of the disease. The flower is from the oriental flowering cherry *Prunus serrulata* and is considered by the patient as a symbol of the force she had to develop. Each stamen corresponds to a surgical procedure she un-

derwent due to the disease. **c–e** Three of multiple tattoos of a 32-year-old woman. This patient decided to get a tattoo after each surgical procedure she underwent. Drawings often used wings as a symbol of the freedom lost because of the disease. Death and the suffering are symbolized by the winged lady on a skull. The salamander is a symbol of resistance and renewing. **f, g** Two of multiple tattoos of a 33-year-old woman. They are mirrored located on each iliac fossa. Note the scars and dressings suggestive of the skin changes induced by the disease. **h** A tattoo on the buttock of a 50-year-old woman. A way to appropriate the disease?

edging the size of our selected cohort, we found a significantly higher prevalence of tattoos (37%) than in the general French adult population (10–18%) [8–13]. According to one study [8], the proportion of non-tattooed HS patients who intend to get a tattoo is greater compared to the general population (17 vs. 6%). Comparisons with the lower prevalence of tattoos and BP in other skin diseases [12, 13] also suggest that tattooing is clearly associated with HS.

Patients with chronic conditions are eager to get body art, especially tattoos. Some patients use tattoos as a pragmatic tool to alert to their conditions (such as diabetes, Addison's disease, epilepsy, drug allergies, etc.) [7, 17, 18], while other use them to regain control of their body [7]. Tattoos have a positive impact on the patient's psyche in terms of ego bolstering and positive body image. They belong to the coping strategies a patient adopts when facing a chronic disease. In our series of patients with psoriasis, 82% stated that their tattoo(s) had a positive effect on their body image [6]. In a cohort of patients with bleeding disorders, 65 and 55% acknowledged that tattoos and BP had improved their body image, respectively [19]. Lastly, more and more women with breast cancer are choosing a decorative tattoo by a tattoo artist to hide the surgery scar, close the patient's disease history, and mark a new start [20, 21]. The need for body image improvement may also explain the increased prevalence of tattooing and BP in women, as found in the general population and in our HS cohort. Of note, in one of the epidemiological studies about tattooing in the French general population [8–13], tattooing proved to be more prevalent in smokers and in workers compared with managers, while both smoking and low socioeconomic status [22] have been related to HS.

Although most of the patients got tattooed before HS onset, we demonstrated that the disease influenced the decision to get a tattoo in 12% of cases, either by opposing the choice (fear of infection or impaired healing) or orientating it (decision to get a tattoo, or choice of its design or placement). The fact that the influence of HS on the decision to get a tattoo was higher in patients with severe disease reinforces the will of the patients to embellish their altered body or to reclaim their body.

Tattooing and BP are different body art practices. Tattooing is a permanent procedure that demands commitment (time, money, stamina). It allows the maximum degree of individuality as regards the design, style, and localization on the body. BP is more restricted to certain body parts, it is performed quickly, and the jewelry can be removed at any time. Therefore, the impact on body im-

age of both procedures is different. In the present series of patients, HS clearly had an impact on the choice of design and placement of the tattoos (Fig. 2). Some patients were again in a process of gaining control of their body by tattooing or as catharsis. None of the patients in this cohort reported any complication related to tattooing. We did not see any strict contraindication for tattooing or BP in patients with HS. Of course, common sense dictates that tattooing or BP should be performed when the disease is inactive, especially if the tattoo is meant to be placed in HS areas. In the case of chronic discharge from any HS areas, the session should be delayed because cleanliness of the tattoo/piercing shop has to be guaranteed for other customers. Lastly, as adalimumab now has the approval in some countries for HS management, it is important to advise the patient about the correct timing for tattooing or BP. In our experience, anti-TNF blockers may be associated with increased side effects after tattooing such a fatigue, delay in healing, and local infections [23]. The risk of infection is usually high after BP, and in the case of adalimumab, we would discourage patients from getting a body piercing in an at-risk area, especially such as the orofacial area.

In conclusion, HS is a disease that painfully transforms the skin of the affected patients, as does tattooing. We report here quite an elevated prevalence of tattooed individuals with HS (37%). Tattoos and BP may have a positive impact on the patient's body image and psyche. Physicians should be able to discuss with the patients in cases where they are willing to get a tattoo or a BP. We do not see any strict contraindication for this patient group.

Key Message

There is a high prevalence of tattoos in patients with hidradenitis suppurativa.

Statement of Ethics

The research was conducted ethically in accordance with the World Medical Association Declaration of Helsinki. The study protocol was approved by the institute's Ethics Committee.

Disclosure Statement

P.G. received honoraria from AbbVie and Novartis as a consultant and delivered lectures for AbbVie, Brothier, Cicaplus, Coloplast, Inresa, and Novartis. N.K. served as a consultant to AbbVie and has received research funding from AbbVie and speaker fees from AbbVie in 2015–2016.

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Author Contributions

H.R. and A.W.: critical revision of the work. P.G. and N.K.: design of the work, acquisition, analysis and interpretation of the data, drafting of the work.

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