

## CHAPTER 22

# Brocq's alopecia (pseudopelade of Brocq) and 'burnt out' scarring alopecia

### BROCQ'S ALOPECIA

The term 'pseudopelade of Brocq' is a source of much confusion and fruitless debate, and should be abandoned. *Pseudopelade* has been used in recent decades to describe some patients with central, centrifugal scarring alopecia (CCSA), a very different condition from that described by Dr Brocq. To avoid confusion, we can refer to the entity described by Brocq as *Brocq's alopecia*. Brocq's alopecia is not a distinct disease but a clinical pattern of scarring alopecia. It is an end-stage or clinical variant of several other forms of scarring alopecia and a diagnosis of exclusion. The same pattern of hair loss can be seen in 'burnt out' lichen planopilaris (LPP), discoid lupus erythematosus (DLE) and other forms of cicatricial hair loss. If a definitive diagnosis of DLE, LPP, CCSA or another form of scarring alopecia can be made based on clinical, histological or immunofluorescent features, then the term Brocq's alopecia cannot be used. If a 'primary' form of Brocq's alopecia exists, it has yet to be convincingly described.

The Brocq's alopecia pattern of hair loss is very uncommon. The typical patient is a Caucasian adult who is surprised to discover discrete, asymptomatic areas of scalp hair loss. In some patients, the disease is slowly progressive, and new areas of alopecia develop over a period of months to years. However, the condition often worsens in 'spurts', with periods of activity followed by 'dormant' periods. This is distinctly different from the slow but steady disease progression seen in forms of CCSA described in [Chapter 18](#). Disease progression in Brocq's alopecia eventually terminates spontaneously.

Unlike CCSA, Brocq's alopecia results in irregularly shaped and often widely distributed and grouped bald patches on the scalp. Cases with exclusive crown or vertex involvement may actually represent examples of 'burnt out' CCSA.

The individual lesion is hypopigmented ('porcelain white' is the classic description) and slightly depressed (atrophic). Lesions are often irregularly shaped, as opposed to the round or oval patches usually seen in alopecia areata and most cases of CCSA ([Figure 22.1](#)). The classic description of 'footprints in the snow' refers to dermal atrophy causing a slight depression below the surrounding normal scalp. In fact, many cases of Brocq's alopecia do not



**Figure 22.1** Typical lesion of Brocq's alopecia in a woman whose hairdresser discovered the bald spot. There was no clinical evidence of active inflammation, and the histological findings were those of 'burnt out' scarring alopecia

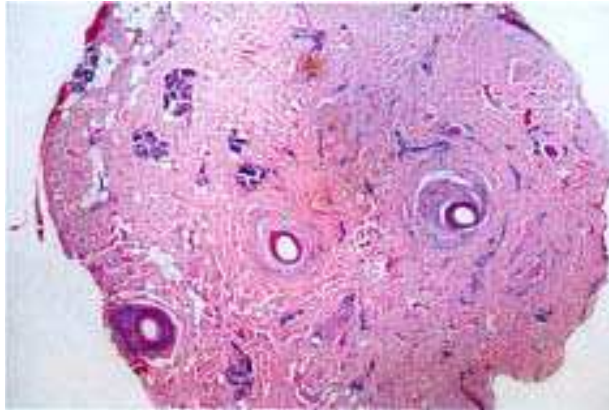
demonstrate atrophy. Usually only mild erythema and slight perifollicular scaling are present, and often there is no clinical evidence of inflammation. In fact, some authors have argued that *any* inflammation excludes Brocq's alopecia from the clinical differential diagnosis. Just as in other forms of scarring alopecia, a few isolated hairs may remain within an otherwise smooth, shiny, denuded patch.

The histological findings of Brocq's alopecia have yet to be clearly defined. The criteria established by Pinkus in 1978 are *not* correlated in any way with clinical features. Thus, 'pseudopelade' as described by Pinkus is a histological and not a clinical entity. In most cases of Brocq's alopecia, the 'active' lesion is elusive, and the typical histological findings are those of a 'burnt out' scarring alopecia (see below).

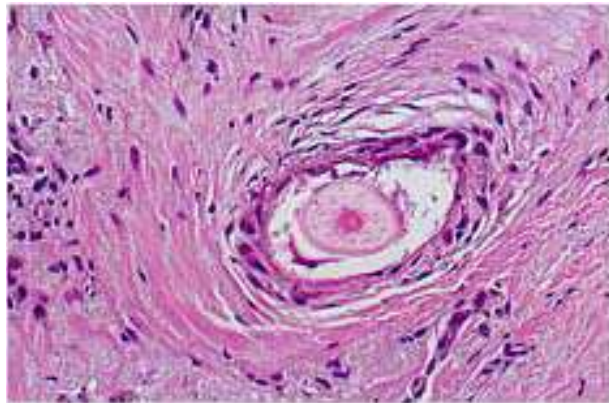
The histological findings of 'pseudopelade' more recently described apply to a subset of CCSA rather than Brocq's alopecia. It would not be surprising to find an occasional case of Brocq's alopecia demonstrating the typical histological findings of CCSA. Brocq's alopecia is, after all, the end stage of several different forms of scarring alopecia. A prospective study of Brocq's alopecia with sound clinical correlation has yet to be performed.

### **'BURNT OUT' SCARRING ALOPECIA**

All too often, pathologists must render the diagnosis of a 'burnt out' or 'end stage' scarring alopecia. The histological term *burnt out scarring alopecia*, like the clinical term *Brocq's alopecia*, does not indicate a specific disease but a pattern common to several entities. There are two possible reasons for finding this pattern. First, the patient's disease may, in fact, have truly 'burnt out' like an old forest fire, with no further follicular destruction. More commonly, however, the 'end stage' pattern is the result of clinicians' unfortunate choice of biopsy sites. Frequently, bald or nearly bald areas are sampled, instead of spots where numerous hairs are still present. The advancing border of a zone of scarring alopecia is always a more productive site than a bald zone. Areas with subtle



**Figure 22.2** The paucity of terminal hairs, lack of inflammation and absence of sebaceous glands are typical of a 'burnt out' scarring alopecia. This particular example was taken from a patient who proved to have central, centrifugal scarring alopecia (based on additional specimens). Original magnification  $\times 40$

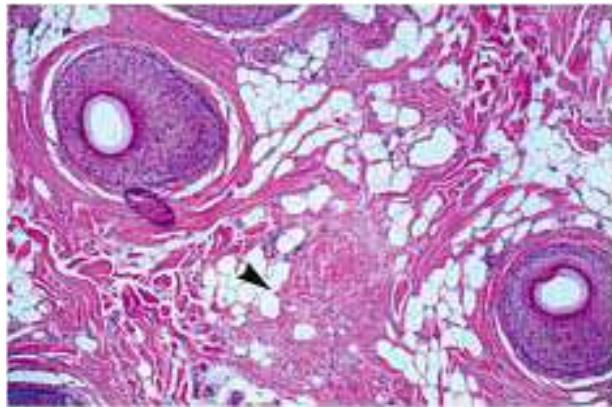


**Figure 22.3** 'Naked' hair shaft surrounded by granulomatous inflammation and fibrosis. Original magnification  $\times 400$

findings such as perifollicular erythema or scaling prove more fruitful than places showing the 'advanced' findings of pustules, papules, extensive hair loss or obliteration of follicular ostia. Just a few millimeters may separate a 'perfect' from a suboptimal biopsy site, but even experienced clinicians cannot see below the surface of the skin. In patients with progressive hair loss, the diagnosis of 'burnt out scarring alopecia' should serve as an invitation for additional biopsy specimens.

An 'end stage' or 'burnt out' scarring alopecia is characterized by: a decreased total number of hairs, especially terminal hairs (Figure 22.2); loss of the sebaceous glands; residual, 'naked' hair shafts surrounded by mild, granulomatous inflammation (Figure 22.3); follicular stela without overlying follicles; and cylindrical columns of connective tissue representing the sites of former follicles (Figures 22.4–22.6).

Dense, superficial, perifollicular inflammation, with destruction of the follicular epithelium (Figure 22.7; see also Figures 18.17–18.20), may be interpreted as a non-specific, 'late' finding heralding impending 'burn out' at the



**Figure 22.4** Transverse section of columns of connective tissue that mark the sites of former follicles (arrowhead). The absence of associated inflammation indicates that the destructive process has truly ‘burnt out’, at least at the site chosen for biopsy. Original magnification  $\times 100$  biopsy site. However, this ‘end stage’ histological finding indicates that the patient has active, progressive disease.





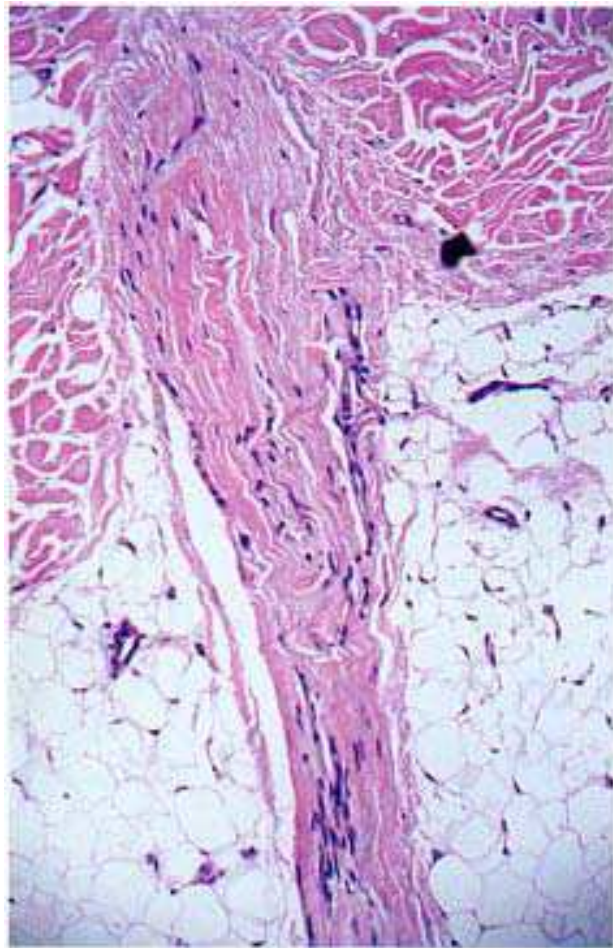
**Figure 22.5** Vertical section of a column of connective tissue, the site of a former follicle (follicular scar). Original magnification  $\times 100$

## SUMMARY

### Brocq's alopecia

*Clinical correlation:* usually in a Caucasian adult, who discovers discrete, asymptomatic, hypopigmented, slightly depressed (atrophic) and irregularly shaped bald patches affecting any portion of the scalp.

*Histological findings:* Brocq's alopecia represents the end stage of various forms of scarring alopecia and usually shows features of a 'burnt out' scarring alopecia (see below). If typical histological findings of LPP, CCSA or other types of scarring alopecia are found, the diagnosis of Brocq's alopecia can be excluded.



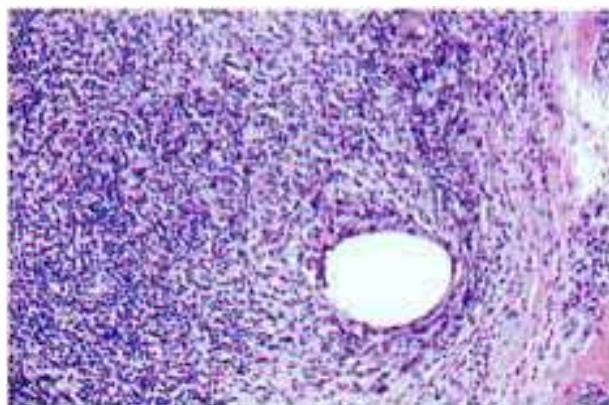
**Figure 22.6** Higher power view of the follicular scar shown in [Figure 22.5](#). Original magnification  $\times 200$

### **‘Burnt out’ scarring alopecia**

*Clinical correlation:* most often indicative of bald or nearly bald plaques in patients with various forms of scarring alopecia. Biopsy site sampling error (and sometimes disease resolution) is the most common explanation.

#### *Histological findings:*

- Decreased total number of hairs, especially terminal hairs
- Loss of the sebaceous glands
- Residual, ‘naked’ hair shafts surrounded by mild, granulomatous inflammation
- Follicular stela without overlying follicles
- Cylindrical columns of connective tissue at the sites of former follicles



**Figure 22.7** Dense, acute and chronic inflammation surrounds a residual hair shaft (lost during processing). This histological pattern often corresponds to the clinical finding of pustules or crusted papules. These are 'late' and non-specific findings. Original magnification  $\times 200$

### BIBLIOGRAPHY

- Amato L, Mei S, Massi D, Gallerani I, Fabbri P. Cicatricial alopecia; a dermatopathologic and immunopathologic study of 33 patients (pseudopelade of Brocq is not a specific clinicopathologic entity). *Int J Dermatol* 2002; 41:8–15
- Braun-Falco O, Imai S, Schmoeckel C, Steger O, Bergner T. Pseudopelade of Brocq. *Dermatologica* 1986; 172:18–23
- Brocq L, Lenglet E, Ayrygnac J. Recherches sur l'alopecie atrophiante, variété pseudopelade. *Ann Dermatol Syphil (France)* 1905;6:1 1–32, 97–127, 209–37
- Dawber R. What is pseudopelade? *Clin Exp Dermatol* 1992; 17:305–6
- Nayar M, Schomberg K, Dawber RP, Millard PR. A clinicopathological study of scarring alopecia. *Br J Dermatol* 1993; 128:533–6
- Pinkus H. Differential patterns of elastic fibers in scarring and non-scarring alopecias. *J Cutan Pathol* 1978; 5:93–104
- Ronchese F. Pseudopelade. *Arch Dermatol* 1960; 82:336–43
- Silvers DN, Katz BE, Young AW. Pseudopelade of Brocq is lichen planopilaris: report of four cases that support this nosology. *Cutis* 1993; 51:99–105
- Sperling L, Solomon A, Whiting D. A new look at scarring alopecia. *Arch Dermatol* 2000; 136:235–42
- Templeton SF, Solomon AR. Scarring alopecia: a classification based on microscopic criteria. *J Cutan Pathol* 1994; 21:97–109
- Whiting DA. Cicatricial alopecia: clinicopathological findings and treatment. *Clin Dermatol* 2001; 19:211–25