A HYALOMA (PSEUDOCOLLOID MILIUM OR COLLOIDOMA ULCEROSUM?) SIMULATING
MORPHEIFORM EPITHELIOMA

REPORT OF A CASE

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In 1914, Hartzell¹ reviewed the twenty-two cases of colloid milium reported in the literature, and added one case of his own. Since this report Milian² and Ketron³ have described two additional cases, and Trimble has presented one before the New York Dermatological Society.

Hartzell placed all reported cases in three groups. The histopathologic picture in patients in the first two groups was essentially the same. The clinical manifestations were unlike in that the first group consisted of cases showing the typical papules over the malar eminences, nose and dorsa of the hands, while the second group included atypical forms in which the histopathologic picture simulated that found in the first, but the objective appearance varied. The so-called colloidoma ulcerosum was placed by Hartzell in the second group. The case which I report might justify a similar name, although the clinical appearance of the lesion at the time the patient came under my observation differs considerably from any heretofore reported. The histopathology of this case likewise presents unusual features, although the end-result is the same.

REPORT OF A CASE

History.—Case A 338135. Miss B. R., aged 36 years, came to the clinic June 23, 1921. The patient was a native of Wisconsin, and did housework. She had never had any serious illness and came to the clinic primarily because of a goiter and a lesion on her left cheek, which she feared might be malignant. The goiter was diagnosed as multiple nontoxic adenoma of the thyroid gland. Several physicians had failed to make a definite diagnosis of the cutaneous lesion.

1. Hartzell, M. B.: Colloid Degeneration of the Skin, with Report of a Case of So-Called Colloid Milium, *Jour. Cutan. Dis.* **32**:683-691, 1914.

2. Milian, G.: Pseudo Milium Colloide plus Exactment Conjunctivomes à dégénérescence hyaline, *Ann. de dermat. et syph.* **6**:422-426, 1916-1917.

3. Ketron, L. W.: A Case of Colloid Degeneration of the Skin with an Unusual Histological Feature, *Johns Hopkins Hosp. Bull.* **29**:163-164, 1918.

The history was not suggestive of colloid millium. Approximately four years before, the patient first noticed what appeared to her to be a small scar on the left cheek. It was never painful but gradually spread. Occasionally it ulcerated, and was slow in healing. She had been advised to refrain from removing the crust, but she was of the type who solicitously applied the fingernail treatment to all lesions about the face. The subjective symptoms were slight tenderness and moderate pruritus, more marked during the day than at night.

Examination.—On examination the process was found to be limited to the left cheek between the angle of the mouth and the malar prominence (Fig. 1). The lesion was about 2 cm. in diameter, definitely circumscribed and depressed, with a few palpable millet seed sized papules in the border, not differing in color

Fig. 1.—Ilyaloma simulating morpheiform epithelioma. The lesion is the flat scarlike patch below the left malar prominence.

from the normal skin. On palpation the depressed portion gave a sense of resistance similar to that of a plaque of morphea. The lardaceous feel, the peculiar glazed appearance, the yellowish gray or ivory color with scattered fine superficial telangiectases and the miliary papules in the border suggested morpheiform epithelioma so strongly that competent dermatologists were inclined to diagnose it as such before biopsy. The lower fifth of the lesion was slightly more depressed, did not have the peculiar color or telangiectases and had more the appearance of a slightly contracted scar. This portion may have been the site of the recurrent ulceration, although the question is how much of it may have been due to a factitious element. Superficial atrophic scars with hyperpigmented borders, evidently of factitious origin were noted over the chin and lower portions of the cheeks. No cutaneous condition was found other than

Fig. 2.—Section illustrating the transition from inflammatory changes on the left to atrophy on the right. The process is at its height at the center. The hyaline bodies are most numerous in the portion of the section to the right of the center. Hematoxylin-Weigert elastic tissue stain. Reduced from photomicrograph $\times 200$.

a small fleshy mole near the nose. The linear scar shown in Figure 1 extending from normal skin well into the lesion was produced by the biopsy.

Microscopic Examination.—The tissue removed for study was sectioned in paraffin and stained with hematoxylin and eosin, Unna polychrome methylene blue, Van Gieson, Weigert elastic tissue stain and hematoxylin, kresyl-echt violet, Unna's method for collagen, polychrome methylene blue-neutral orcein, and acid orcein.

In the section through the central portion of the excised tissue the entire picture of the process could be seen. The initial changes are inflammatory in character, as shown in the left portion of Figure 2. These consist of an acanthosis with proliferation of the rete pegs and islands of mononuclear

Fig. 3.—Group of hyaline bodies in the apex of a papilla.

infiltration with slight fibroblastic proliferation and a few suggestions of new-formed blood vessels in the corium. Toward the center of the section the perivascularitis increases and there is endothelial swelling, but no true endarteritis. Quite extensive inflammatory infiltration of the corium occurs, lymphocytes invade the cutis, and the first changes appear in the connective tissue of the tops of the papillae in the form of swelling and fragmentation of the collagen and changes in the elastica which cause the tissue to take the basic stains with marked avidity. There is some splitting, fragmentation, and swelling of the elastica as well. Here and there in the tops of the papillae, and at times deeper in the corium, along the sides of the hair follicles, for example, irregularly ovoid masses of hyaline or colloid material appear. Clumping of the elastica takes place when the collagen is considerably reduced in

amount. This, combined with the disappearance of the collagenous bands and the heavier staining of the elastin, gives the upper corium a peculiar vermicelli appearance. The hyaline bodies collect largely at the apexes of the papillae; they are never numerous, but show a tendency to collect in clumps. Such collections probably form the pearly nodules visible clinically (Fig. 3). Hyalin or colloid seems to be formed as the inflammatory process begins to decline and the first signs of atrophy appear.

On the extreme right of the section (Fig. 2) the acanthosis has disappeared with the inflammatory infiltrations in the cutis. The thinning and flattening of the subpapillary layer especially, with the conspicuous though scanty elastic fibrils taking the basic stain is all that remains of the process. The disproportion-

Fig. 4.—Vacuolation and possible invasion of hyaline bodies by macrophages.

tion between the amount of collagen and elastin is very noticeable. The extensive degree of degeneration and atrophy and the comparatively small amount of the presumptive end product, the hyaline or colloid masses, as the process subsides, seem significant. At one or two places in the sections there are hints as to the fate of this product of degeneration. Vacuolation of some of the fully formed hyaline bodies occurs, and at several points the sections (Fig. 4) suggest that the nodules are being invaded by rather large mononuclear cells, corresponding possibly to the macrophages described by Bizzozero⁴ and later by Ketron. The appearance of vacuolation without nuclei within

4. Bizzozero, E.: Ueber eine klinisch ganz eigenartige Form von Pseudo-Colloidmilium, *Arch. f. Dermat. u. Syph.* **95**:35-43, 1908.

some of the hyaline mass may be due to the activities of these cells or to the cutting of the nodule in such a way as to show the body of the macrophage within the nodule minus the nucleus. The histologic picture is very suggestive of Bizzozero's case. The adnexa and the vessels, when the inflammatory changes have subsided, usually present no important changes, and signs of hyaline degeneration of the latter could not be found. The nodular masses of degenerated collagenous and elastic tissue give the usual reactions for hyalin.

While it was not possible to carry out a minute microchemical differentiation from the colloid described by other observers, it seemed preferable to designate the condition as a hyaloma, since the term colloid appears to have rather a macroscopic morphologic descriptive value than an established pathologic significance.

SUMMARY

1. The lesion on the face of this patient clinically suggested a morpheiform epithelioma and was diagnosed as such.
2. Pathologic study apparently demonstrated that it was an unusual clinical type of colloid degeneration of the connective tissues, perhaps best designated a hyaloma.
3. The degeneration was preceded by a slowly extending inflammatory process which was followed by atrophy and the disappearance of most of the hyaline or colloid material, possibly as a result of the activity of macrophages, although this point is not regarded as fully established.