臨　　床

一種ノ血管運動榮養神經性疾患ノ1治驗例

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An Unusual Case of Trophoneurotic Gangrene

By

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Patient : 21 years old female.

Since childhood she has been suffering from repeatedly occuring ulcerations in various parts of both legs and feet. The ulcerations recurred rather frequently in winter and usually persisted for several months. There has been no pain in the affected region.

Local changes at the time of admission (Feb. 2, 1939) were as follows : Both legs and feet were not remarkably thin, although there were no hairs in the distal parts and the toes were slightly livid (Fig. 1 and 2). Large toes were strikingly thickened, deformed and deviated in hallux varus position on both sides, especially on the left. The nails of all toes were also roughened, deformed and distorted. There were ulcers (0.4—1.0 cm in diameter) with little tendency towards healing on the plantar side of the tips of the first and second toes on the right and of the fourth on the left. Pulsations of A. dorsalis pedis and A. tibialis post. were essentially normal. It is to be noticed that remarkable sensory disturbances were present : Hypesthesia of the distal parts of both legs and anesthesia of both feet for all forms of sensation. Patellar and Achilles' reflexes were totally lost on both sides.

Similar changes, though much less significant, were noted in hands and fingers. There was no such thickening of peripheral nerves as seen in leprosy. Cerebrospinal fluid was completely normal and Lipiodol myelogram showed nothing pathological.

On Feb. 10, 1939, bilateral sympathectomy in the lumbosacral region was performed. The effect of the operation was excellent and the ulcers healed rapidly within ten days after the operation, though the sensory disturbances remained unaltered.

Comment : In the present case the outstanding clinical features are : i) The symmetrical appearance of changes in both upper and lower extremities, ii) trophoneurotic disturbances (ulcerations, thickening and deformation of toes, distortion of nails, falling off of hairs, etc.), and iii) sensory loss, while iv) circulatory changes are not conspicuous, palpable peripheral arteries

showing normal pulsations.

It may be reasonable to include this case in the group of vasomotor-trophic disorders. The definite diagnosis, however, is not to be established, because it differs symptomatically, more or less, from *Raynaud*'s disease, acroparesthesia, acroasphyxia, erythromelalgia and sclerodermia.

Sensory disturbance as experienced in this case is not unusual in some vasomotor-trophic disorders, such as acroasphyxia and acroparesthesia. Slight hypesthesia is not infrequently found in *Raynaud*'s disease and erythromelalgia. Would it not be justifiable to assume that there may be a trophoneurotic disease in which sensory and trophic disturbances predominate, while circulatory changes are not conspicuous? If so, this patient may represent such a case.

The cause of the excellent result of the sympathectomy may be in restoring the pathological balance in the peripheral autonomic nerves, rather than in improving the arterial blood supply to feet. Another possibility of explanation may be in activating the vitality of local tissues following sympathectomy, as Dr. *Saeki* has shown in his experimental animals (Arch. Jap. Surg. Vol. 16, pp. 921—1004, 1939).

緒　　言

從來血管運動榮養神經性疾患トシテ Raynaud 氏病，肢端紅痛症，慢性肢端窒息症，肢端感覺異狀症 (Akroparaesthesie)，鞣皮症 (Sklerodermie) 等ガ擧ゲラレテヰルガ，コヽニ報告スル例ハ，其ノ何レニモ屬セシメ得ナイ血管運動榮養神經性疾患ノ1異例，卽チ榮養障碍ト知覺麻痺トヲ主徵トスル1例デアル。

臨　床　例

患者：高〇キ〇枝，21歲女，昭和14年2月2日入院。

主訴：兩足部ニ於ケル難治ノ潰瘍。

現病歷：幼時（何歲頃カ明カナル記憶ナシ）ヨリ兩下腿ヨリ足部ニカケテ無痛性ノ水泡ヲ生ジ，之ガ自潰セル後ニハ潰瘍ヲ生ジ，數ケ月ニシテ漸ク治癒スルヲ常トス。斯ル障碍ハ特ニ冬期ニ於テ甚シカリキ。現在モ兩側趾部ニ數ケノ潰瘍ヲ有ス。尙ホ時折兩下腿ヨリ足部ニカケテ感覺異常ヲ來ス事アリ。步行時兩膝部ニ鈍痛ヲ覺ユル事アルモ其以外ニハ疼痛ラシキモノ無シ。

家族歷及ビ既往症：特記スベキモノ無シ。

現症：體格榮養共ニ尋常，脈搏1分時90，整正。胸部，腹部臟器ニ著變ヲ認メズ。

血液檢查：赤血球數 5,180,000，白血球數 7,400，血液像ハ正常。

尿檢查：著變無シ。

四肢：—

兩下腿，足部ニハ全體トシテ筋萎縮ヲ認メズ。但シ兩下腿中央以下ノ毛髮ハ殆ンド脫落セリ。兩側特ニ左側第1趾ハ著シク肥大シ，且ツ Hallux varus 位ヲ呈セリ。コノ肥大ハ軟部ノミナラズ骨ノ肥厚ニヨルモノナリ。趾ノ先端ハ一般ニ輕度ニ鉛赤色ニシテ爪ノ變形彎曲アルモ特ニ左第1，第4趾，右第1，第2趾ニ於テ著明ニシテ，此部ノ趾端ニハ徑 0.4 乃至 1.0 糎ノ無痛性潰

瘍アリ。治癒ノ傾向甚ダ少シ。A. dorsalis pedis, A. tibialis postica ノ搏動ハ兩側共ニ全ク正常ト異ナラズ。兩側下腿筋ノ筋力弱ク且ツ緊張低シ。膝蓋腱及ビアヒレス腱反射ハ兩側共全ク喪失ス。

注目スベキ所見トシテ兩下腿下部ヨリ足部ニカケテ著明ナル知覺障碍アリ。之ハ尖端ニ近キ程，程度強ク足ノ前1/3部ニ於テハ知覺全ク消失ス。觸覺，痛覺，溫度覺，深部感覺ノ總テノ種類ニ於テ殆ンド同程度ニ障碍セラレタリ。

上肢：兩側指部ハ輕度ニ鉛赤色ニシテ glossy skin ノ傾向アリ。爪モ多少變形シ粗糙トナレリ。潰瘍ヲ認メズ。前膊筋及ビ掌筋ノ筋力減弱。二頭及ビ三頭膊筋反射及ビ橈骨，尺骨反射喪失。兩側ノ總ベテノ指ニ各種ノ知覺スベテ鈍麻ス。A. radialis ノ搏動ハ正常。卽チ上肢ノ變化モ下肢ト同性質ナレド程度ガ輕少ナルノミ。(Fig. 1, 2, 3)

Fig. 1　足　腹　面

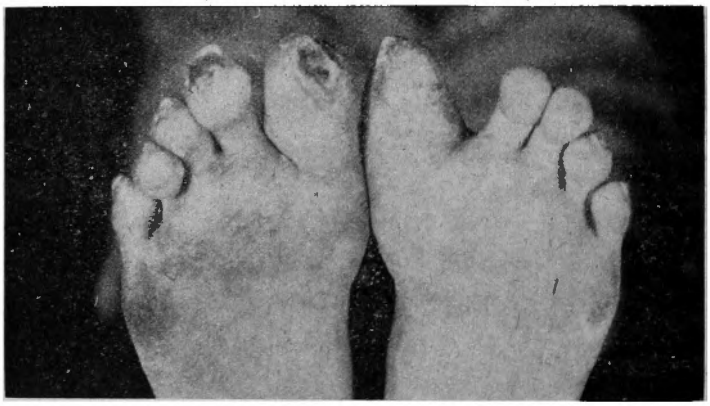
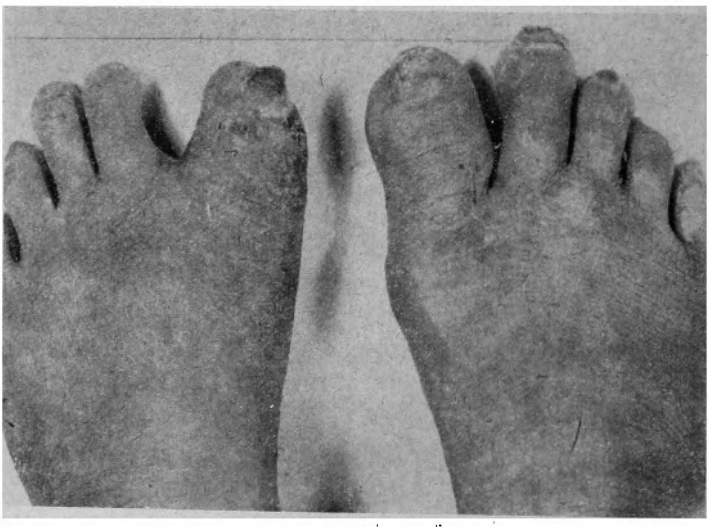


Fig. 2　足　背　面



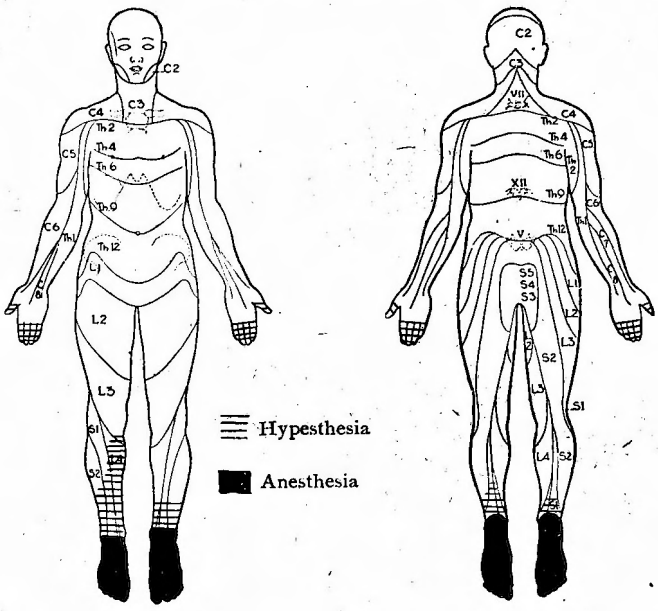
尺骨神經，腓骨神經，大耳殼神經，其他全身何處ニモ神經肥厚ヲ證明セズ。

腦脊髓液ニ變化ナシ。Myelogramm ニモ異常ヲ認メズ。

藥效學的檢査：「アドレナリン」(−)，「ピロカルピン」(±)。

以上要スルニ本例デハ四肢末端部ノ榮養障碍ト神經麻痺（主トシテ知覺）トガ著明デアツテ，血行障碍ハ比較的輕度デアル。少クトモ A. dorsalis pedis, A. tibialis postica, A. radialis ノ如キ幹血管部ニハ異常ハナイ。且ツ今迄ニハ大シタ疼痛ヲ來シタ事ガナイ。

Fig. 3 觸覺鈍麻域



本病ガ患者ノ幼時ヨリ始ツテ10年以上ノ經過ヲモツテ居ル事，及ビ身體ノ何處ニモ神經肥厚ノ無イ事カラ癩ハ除外出來ル。又知覺麻痺ノ狀態ハ脊髓空洞症ニ於ケル分離帶狀麻痺トハ全然異ルモノデアル。唯脊髓空洞症ノ1異型ニ榮養障碍ヲ主徵トスル Morvan 氏病ナルモノガアル。之ハ兩側又ハ一側ノ各指先部ニ難治ノ潰瘍ヲ生ジ，著明ナル知覺障碍（溫，痛覺ノミナラズ他ノ知覺モ犯サレル）ヲ伴フモノデ，一寸本例ノ所見ニ似テヰル樣ニ見エル。併シ之ハ從來ノ記載デハ上肢（手）ニ來ルモノデアツテ上下肢左右對稱性ニ來ルモノデハナイ。又元來脊髓ノ何所カ1ケ所ニ病變ガアツテ，ソノ爲ニ本例ノ如ク四肢ニ對稱性ニ而モソノ末端部ノミニ變化ヲ呈スルト言フコトハ甚ダ考ヘ難イ事デアル。尙 Morvan 氏病デハ手ニ著明ナ皮膚肥厚ヲ來スガ本例デハソレガナイ。

要スルニ本例ハ四肢末端ニ對稱的ニ來タ榮養障碍トイフ點カラシテ，全身的ナ血管運動榮養神經性疾患 (Vasomotorisch-trophische Störung) ノ範疇ニ屬スルモノト考ヘルノガ最モ妥當ト思フ。併シ疼痛發作無ク，又知覺障碍ノ强イ事等カラ無論 Raynaud 氏病ヤ，肢端紅痛症 (Erythromelalgie) デハ無ク比較的近イノハ Acroasphyxia chronica デアラウト思フ。

卽チコノ疾患ハ小兒期ヨリ徐々ニ發病スル四肢末端部ノ對稱性血管運動障碍 (Asphyxie) デアツテ通常疼痛ヲ缺如シ，罹患部ノ肥大（稀ニ萎縮）ト同時ニ著明ナル知覺障碍ヲ伴フ。潰瘍，壞疽ヲ來スコトモアリ得ル。コレガ Acroasphyxia デアルガ吾等ノ例ハ肢端ノ榮養障碍（潰瘍）ノ程度ニ比シテ Asphyxie 症狀ガ著明デナイノデコレトモ異ツテヰル。結局本例ハ從來記載サレタ血管運動・榮養神經性疾患ノ何レニモ一致シナイ。併シコノ範疇ニ屬スル諸疾患，卽チ Raynaud

氏病，肢端紅痛症，Acroasphyxia, Acroparaesthesia，鞏皮症等ハ相互ニ相關聯シタ疾患ト考フベキモノデ，ソノ間ニハ移行型ト認メラレルモノモ尠クナイ。卽チ之等ハ症候的ニ言ヘバ血行障碍，榮養障碍，知覺障碍ノ3者ガ異ツタ程度ト異ツタ組合セニ於テ現ハレテ居ルモノトモ考ヘ得ル。從ツテ本例ノ如ク榮養障碍ト知覺障碍ノ2ツガ著明デ血行障碍ノ輕微ナ場合モ當然アリ得ルト思フ。

手術(昭和14年2月10日)：兩側腰薦交感神經切除術（右 S_1，左 $L_4L_5S_1$)。術後10日ニシテ潰瘍ハ總ベテ全ク治癒セリ。知覺障碍モ幾分輕快セルモ左程著明ナラズ。

コノ手術ニ依ツテ潰瘍ガ速ニ治癒シタ事ハ，始メカラ血行障碍ガ著明デナカツタ點ヨリ考ヘテ，其ノ理由ヲ血行ノ恢復ニ歸スル事ハ困難デアル。結局下肢ニ於ケル血管運動・榮養神經ノ失調狀態ガコノ手術ニヨツテ改善サレタル結果ト漠然ト考ヘルカ，又ハ佐伯善雄博士ノ實驗ニ從ツテ交感神經支配ガ遮斷サレ，爲ニ配下一切ノ組織細胞ノ生活力ガ增强サレタ結果トモ考ヘラレル。

文　　献

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