



## FOLK MEDICAL TREATMENT IN EGYPTIAN NUBIANS

EUGEN STROUHAL

During two joint expeditions of Czechoslovak and Egyptian anthropologists to New Nubia in 1965 and 1967 (Strouhal 1974) attention was paid also to the detection and systematic documentation of scars left after folk therapeutic practices. It was shown that this method, associated with statistical assessment, provided a more exact picture of the frequency of folk therapeutic procedures than data from the medical history alone, since many of the individuals examined could not remember all therapeutic procedures to which they were subjected.

The designation New Nubia is used for the recultivated area of the aluvial plane east of the town Kom Ombo in Upper Egypt. Nubians, displaced to this region in 1963 and 1964 from the original Egyptian Nubia, situated between the building ground of the High Dam and the frontier between Egypt and Sudan, were settled in newly built villages which were constructed in such a way that the original larger administrative units, communities (**karia**), were maintained and arranged into regions of three ethnic groups of old Nubia, i. e. the Kenuz, Arab and Fadidja. The original small settlements, the hamlets (**naga**) were lacking in New Nubia. Together with Nubian settlers some nomads, i. e. the Ababda from the Eastern Desert were displaced as well and settled gradually at the outskirts of some villages. Therefore, in addition to large population samples of the three ethnic Nubian groups, we had the opportunity to examine also a smaller population sample of the Ababda.

My studies into indigenous medical practices were carried out on the adult male population. Corresponding data in children and women, recorded by J. A. Valšík and F. H. Hussein (1973), were used for comparison. The main part of our material consisted of adult males aged from 21 to 55 years from all three investigated ethnic groups. This limited range of age was chosen because of the ascertained prolongation of the growth period and the earlier onset of senile changes in Nubians (Strouhal 1970). In addition to adult males of all Nubian ethnic groups we examined also smaller numbers of adolescents (aged 15—20 years) and a group of old Kenuz males (aged 56 years and older). The inclusion of these age categories allowed a comparison in order to ascertain whether there were recently any changes in the frequency of the applied folk medical therapeutic procedures.

The scars due to therapeutic practices were subdivided into two groups differing markedly by their morphology, technique of the therapeutic procedure, as well as by other characteristics. There were, in the first place, linear scars after incisions (**tash-rih**), mostly in vertical direction. They were found regularly laterally from both orbits and consisted mostly of two or three linear incisions. Larger numbers of scars covering sometimes large areas and proceeding in an oblique direction were disclosed in various localizations on the trunk and on arms. On the face also horizontal incisions were present. The length of incisions varied between one and several centimeters, scars of more than six centimeters in length being exceptional.

The second group consisted of circular scars, often with wrinkled and slightly depressed surface; keloids occurred more rarely. The contour ranged from a regularly circular, over a horizontally or vertically oval to a horizontally elongated form. Its length could be sometimes even six times larger than its width; such scars were located most frequently above and below the navel. The scars represented the sequelae of cauterization, i. e. of burning with a hot iron and therefore were designated in Arabic as **kauwi**, i. e. brand-mark.

The results of frequency and localization of both types of practices are presented in Tables 1 and 2. There are obvious differences in their frequency. In the total series of adult Nubian

**Tab. 1 Frequency and Localization of Linear Scars after Incisions**

Ethnic and age group	Number of persons examined	Frequency of persons with incisions n %	Localization									
			Laterally from orbits n %	Front n %	Cheeks n %	Chest n %	Abdomen n %	Back n %	Lateral sides of the trunk n %	Arms n %	Other and nonspecified n %	
Kenuz, young	42	11 26.19	9 21.43	2 4.76	3 7.14	— —	— —	— —	— —	— —	— —	1 2.38
— adult	103	27 26.21	20 19.42	6 5.83	3 2.91	1 0.97	5 4.85	4 3.88	— —	— —	2 1.94	— —
— old	35	5 14.29	4 11.43	— —	1 2.86	— —	1 2.86	— —	— —	— —	— —	— —
— total	180	43 23.89	33 18.33	8 4.44	7 3.89	1 0.56	6 3.33	4 2.22	— —	— —	2 1.11	1 0.56
Arab, young	14	6 42.86	6 42.86	3 21.43	— —	— —	— —	— —	— —	— —	— —	— —
— adult	115	39 33.91	34 29.57	13 11.30	2 1.75	1 0.87	6 5.22	5 4.35	— —	— —	1 0.87	1 0.87
— total	130*	45 34.62	40 30.77	16 12.31	2 1.54	1 0.77	6 4.62	5 3.85	— —	— —	1 0.77	1 0.77
Fadidja, young	54	20 37.04	17 31.48	5 9.26	5 9.26	2 3.70	6 11.11	3 5.56	1 1.85	— —	1 1.85	— —
— adult	175	117 66.86	77 44.00	20 11.43	31 17.71	45 25.71	79 45.14	80 45.71	9 5.14	22 12.57	4 2.29	4 2.29
— total	233**	138 59.23	95 40.77	26 11.16	37 15.88	47 20.17	86 36.91	84 36.05	10 4.29	23 9.87	4 1.72	4 1.72
Ababda, adult	24	12 50.00	11 45.83	1 4.17	— —	1 4.17	1 4.17	1 4.17	— —	— —	— —	— —
— total	27***	13 48.15	12 44.44	1 3.70	— —	1 3.70	1 3.70	1 3.70	— —	— —	— —	— —
All Nubians, adult	440§	209 47.50	152 34.55	41 9.32	40 9.09	51 11.59	95 21.59	95 21.59	11 2.50	25 5.68	7 1.59	7 1.59

**Explanatory notes:**

n = number of cases

% = per cent rate from the number of persons examined

+ = one more old Arab included

++ = four more old Fadidja included

+++ = three more young Ababda included

§ = total with 23 more Nubian hybrids included

**Tab. 2 Frequency and Localization of Circular Scars after Cauterization**

Ethnic and age group	Number of persons examined	Frequency of persons with cauterization n %	Intensity of cauterization n <sub>1</sub> n <sub>2</sub>	Localization								
				Cervical spine n %	Thoracic spine			Lumbar spine n %	Sacral region n %	Abdomen, esp. around navel n %	Other and nonspecified n %	
					upper (Th <sub>1-4</sub> ) n %	middle (Th <sub>5-8</sub> ) n %	lower (Th <sub>9-12</sub> ) n %					
Kenuz, young	42	2 4.76	4 2.00	— —	— —	1 2.38	1 2.38	— —	2 4.76	— —	— —	— —
— adult	103	29 28.16	64 2.21	10 9.71	4 3.88	12 11.65	5 4.85	5 4.85	6 5.83	7 6.80	5 4.85	5 4.85
— old	35	5 14.29	8+x)1.60	1 2.86	— —	4 11.43	1 2.86	— —	1 2.86	1 2.86	1 2.86	1 2.86
— total	180	36 20.00	76+x)2.11	11 6.11	4 2.22	17 9.44	7 3.89	5 2.78	9 5.00	8 4.44	6 3.33	6 3.33
Arab, young	14	3 21.43	5 1.67	2 14.29	— —	— —	— —	1 7.14	2 14.29	— —	— —	— —
— adult	115	70 60.87	152+x)2.17	49 42.61	4 3.48	24 20.87	10 8.70	21 18.26	4 3.48	1 0.87	10 8.70	10 8.70
— total	130*	73 56.15	157+x)2.15	51 39.23	4 3.08	24 18.46	10 7.69	22 16.92	6 4.62	1 0.77	10 7.69	10 7.69
Fadidja, young	54	6 11.11	7 1.17	2 3.70	1 1.85	3 5.56	1 1.85	— —	— —	— —	— —	— —
— adult	175	53 30.29	109 2.06	11 6.29	7 4.00	29 16.57	13 7.43	6 3.43	7 4.00	2 1.14	2 1.14	2 1.14
— total	233**	59 25.32	117 1.98	13 5.58	8 3.43	32 13.73	14 6.01	6 2.58	7 3.00	3 1.29	2 0.86	2 0.86
Ababda, adult	24	10 41.67	4+x)0.40	4 16.67	— —	— —	— —	— —	— —	1 4.17	8 33.33	8 33.33
— total	27***	11 40.74	9+x)0.82	5 18.52	— —	1 3.70	1 3.70	— —	— —	1 3.70	9 33.33	9 33.33
All Nubians, adult	440§	179 40.68	359+x)2.01	80 18.18	16 3.64	74 16.82	32 7.27	33 7.50	22 5.00	13 2.95	27 6.14	27 6.14

**Explanatory notes:**

n = number of cases

% = per cent rate from the number of persons examined

+ = moreover, one old Arab included

++ = four more old Fadidja included

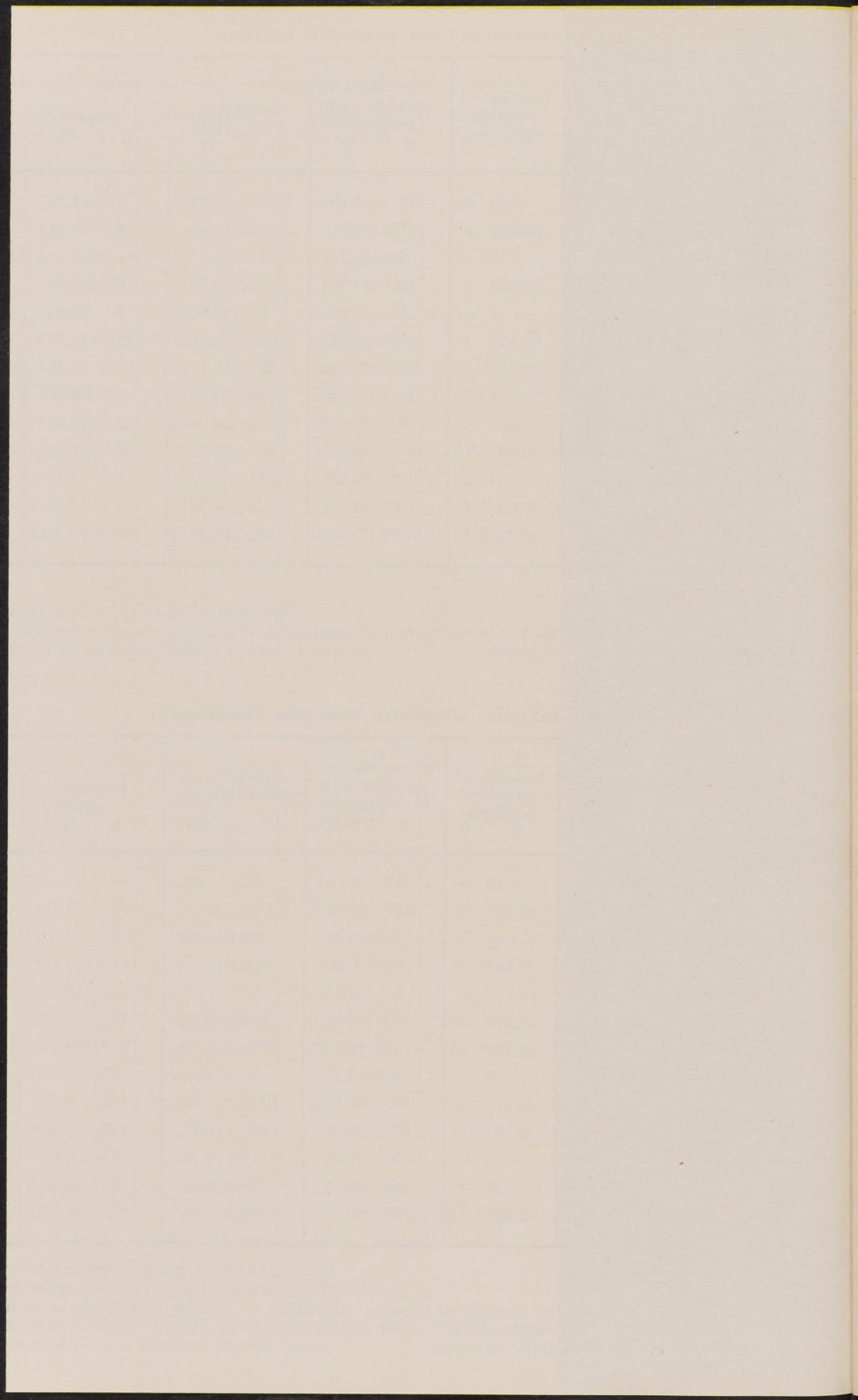
+++ = three more young Ababda included

§ = total with 23 more Nubian hybrids included

n<sub>1</sub> = absolute number of scars

n<sub>2</sub> = number of scars divided by the number of persons with cauterization

x = a nonspecified number of further scars



males the frequency of incisions was slightly higher (47.50 %) as compared to cauterization (40.68 %). Both types of interventions differed in their frequency in the individual ethnic groups of adult males. The highest frequency of incisions was present in the Fadidja (66.86 %), followed by the Ababda (50.00 %), while in the Arab (33.91 %) and in the Kenuz (26.21 %) it was approximately by one half lower. On the contrary, cauterization predominated in the Arab (60.87 %) and was less common in the Ababda (41.67 %); it occurred with a half frequency in the Fadidja (30.29 %) and in the Kenuz (28.16 %).

It appeared characteristic that, even though Valšík and Husien (1973) found in Nubian children and women a markedly higher total incidence of incisions, as compared to cauterizations, their reported incidence of both procedures in individual ethnic groups was much lower and the order of individual ethnic groups differed as well. No Ababda children or women were included among the individuals examined.

The lower incidence in children is not surprising. Because of their young age it was not possible to subject them to such large numbers of therapeutic procedures as it was the case in adult males. This low frequency, however, probably also reflects the influence of the modern civilization, especially of medicine, engaged in the fight against the use of indigenous therapeutic procedures. Incisions were found only in 16.16 % of Arab, in 8.73 % of Kenuz, and in 5.21 % of Fadidja children. There was especially a strikingly low frequency of cauterization scars in children which were present in as little as 2.85 % of Arab, 1.46 % of Fadidja and 1.42 % of Kenuz children.

The frequency of both procedures in women was intermediary between the values recorded in children and those reported in men. Incisions were recorded in 17.1 % of Arab, 15.1 % of Fadidja and 14.5 % of Kenuz women, while cauterizations were found in 8.1 % of Fadidja, 7.2 % of Kenuz and 5.3 % of Arab women. Incisions recorded in Arab and Kenuz women attained approximately half the frequency of corresponding values in men, while they amounted only to one quarter of the latter in Fadidja women. The frequency of cauterizations in Fadidja and Kenuz women amounted only to one quarter, and in Arab women only to one twelfth of the values ascertained in men. Thus the highest

frequency of incisions in Fadidja adult males and of cauterization in Arab adult males were in contrast to their relatively lowest frequency values in women. Two factors could be responsible for these differences between the two sexes. The first factor which should be taken into consideration is methodical. Even though the examination of women was carried out by a female physician, she was not able to achieve in each case an examination of a completely unclothed body. Thus a certain number of scars which the women examined did not show to the investigator might have escaped notice. Yet in spite of this artificial reduction of frequency of both types of therapeutic practices in women it was not possible to exclude a social factor. Men representing in Nubia the leading social element requested probably more often treatment than women. The differences between the frequency of therapeutic procedures in both sexes obviously did not allow the conclusion that man showed a higher morbidity rate than women.

A comparison of age categories in males (Tables 1 and 2) disclosed that young men had an equal (Kenuz), a markedly higher (Arab), or a markedly lower frequency of incisions (Fadidja). It can be concluded that this discrepant data do not provide evidence of a reduction of the incision rate in members of the younger generation. The frequency of cauterization in all ethnic groups, on the contrary, was markedly lower in young males as compared to adult men. This clear evidence of the reduction of the frequency of this practice is in agreement with the above mentioned very low cauterization rate in children.

The single group of old men from the Kenuz ethnic group showed approximately half the frequency of both therapeutic procedures, as compared to younger adult Kenuz males. This finding which for technical reasons was limited only to one of the four investigated ethnic groups, did not allow a paradoxical conclusion about the lower rate of these procedures in members of the older generation. It was most probably due to the same reason as in women. Some of these old men, mostly highly respected members of rural communities, did not remove all their clothing during those examinations and equally some of them did not draw attention to some scars which remained hidden under their clothes.

The localization of both therapeutic procedures differed widely as well. In the series of adult Nubian males the incisions (Table 1) were situated predominantly laterally from the orbits (in 34.55 %), then followed the abdomen (in 21.95 %) and the back (in 20.91 %), and subsequently the anterior chest wall (11.59 %), the front (9.32 %), and the cheeks (9.09 %). Incisions were less frequent on arms (5.68 %), on the lateral sides of the trunk (2.5 %) or in other and nonspecified localizations (1.59 %).

With respect to the individual ethnic and age groups, in adult Fadidja males, showing the highest frequency of incisions, a strikingly high number of dorsal and abdominal localizations was disclosed, which were even somewhat more frequent than the usually predominating localization laterally from the orbits. Then followed an equally increased frequency of localizations on the anterior chest wall, on cheeks and arms. Incisions on lateral sides of the trunk were found exclusively in Fadidja males.

Cauterizations (Table 2) predominated in the region of the vertebral column. Scars were most frequently found within the thoracic segment of the spine. Because of its length the thoracic spine was subdivided into three segments. The highest frequency of scars was present within the middle segment (16.82 %), then followed the cervical spine (18.18 %), the lumbar spine (7.50 %), the lower thoracic segment (7.27 %) and the sacral region (5.00 %). From the other sites attention should be drawn to abdominal localizations which were concentrated mostly into two horizontal lengthy scars above and below the navel (2.95 %). The group including other and nonspecific localizations was relatively large (6.14 %). In five cases the scars were suprascapular, in three cases they were in the precardiac region on the chest, three in various sites in the region of the shoulder girdle, three on the back, two on the coccyx and two on the head. Among the differences between individual groups was of particular interest that in Arab males, showing the highest frequency of cauterizations, a strikingly high proportion of these was found within the regions of cervical, middle thoracic and lumbar spines.

In some of the investigated groups the intensity of cauterization could be determined as well. The number of disclosed cauterization scars was divided by the number of individuals

subjected to this procedure. The highest values were obtained in adult Kenuz males (2.21) and in adult Fadidja males (2.06), while in the three groups of young people the values varied from 1.17 to 2.00, which was in agreement with the above mentioned conclusion about the decreasing use of this method in recent times. In adult Arab, in old Kenuz and in the Ababda the intensity still exceeded that recorded in adult Kenuz males, but exact calculations were not possible because in cases with multiple scars their total number was not determined during these examinations.

In a randomized sample of individuals treated with either of both practices the indication for the therapeutic procedure, the age at which it was used, the person who performed it, and whenever possible the equipment used, were determined. The data obtained by investigations of personal histories of individuals examined revealed substantial differences between the two types of procedures.

The predominant majority of incisions was carried out for therapeutic purposes. Of the 60 individuals questioned, 29 (49.33 %) stated that vertical incisions laterally from the orbits were carried out either for the treatment or for prevention of eye diseases. Trachoma is one of the most common eye diseases in Nubia. Nonspecific affections were reported by 9 individuals as the reason for various localizations of incisions (15.00 %). Further 9 individuals stated that the incisions were carried out for the withdrawal of "bad blood", or as general preventive measures (15.00 %). In six cases (10.00 %) incisions were performed for the treatment of other diseases, viz. injuries (incisions laterally from the right orbit), back pain (incisions on the left from the right shoulder blade), recurring headache (repeated incisions within the lambda region of the head), obesity (abdominal incisions), and even infectious hepatitis (incisions on arms). In other four cases (6.67 %) indications for incisions within the abdominal region included pain, diarrhoea, or some other abdominal complaints. Other than therapeutic reasons were mentioned in three cases only (5.00 %). Two of them were alleged tribal customs and one was a punishment for eaten figs.

Among the 76 questioned individuals most incisions were performed during their childhood. In nine cases it was within

the age group of 0—2 years (11.84 %), in eight cases within the age group of 3—6 years (10.53 %) and only in two cases within the age group of 7—14 years (2.63 %). Into this group should be included further 52 cases (68.42 %) where the time of intervention was designated simply as “during childhood”. Thus the series as a whole was subjected to these practices during childhood in 93.42 % of cases. In only the remaining five cases three times adolescent age between 15 and 20 years (3.95 %) and twice adult age above 21 years (2.64 %) were involved.

Forty two (76.36 %) of 55 questioned individuals were operated upon by their mother. An exception represented single cases operated upon by their father, another relative or a servant. In seven cases (12.73 %) these interventions were performed by persons more or less specialized in these therapeutic practices (three Arab males, one Nubian male, one Nubian female, a man called “hala’ sache”, one Sudanese male). In three cases (5.45 %) some not nearer defined women living in the neighbourhood of the treated individual were the performers of this treatment.

In ten of the forty questioned individuals (23.80 %) the indication for cauterization in the region of the vertebral column consisted of spinal pain or of back pain. In further seven cases (16.67 %) it was carried out as a supportive measure in injuries, even then when the spine was not directly involved. Some other affections reported by six individuals (14.29 %) included: in two cases an increased thoracic kyphosis, in single cases coughing, elevated temperature, torticollis and sensation of chest pressure, associated with mental disorder. In four cases (9.52 %) the treatment was applied for not nearly defined diseases, in further three cases (7.14 %) as a preventive “fortifying” measure. Cauterization within the abdominal region and once also in the lower lumbar region was applied in ten individuals with abdominal affections (23.80 %); in four because of diarrhoea, in three for abdominal pain, in one for dyspeptic complaints, in one for an undefined disease and in one as a preventive measure. A rarely encountered cauterization beyond the left orbit was applied for an undefined eye disease (2.38 %) and on the left shoulder because of pain in the shoulder joint (2.38 %). Thus all cauterizations were carried out as therapeutic or preventive measures.

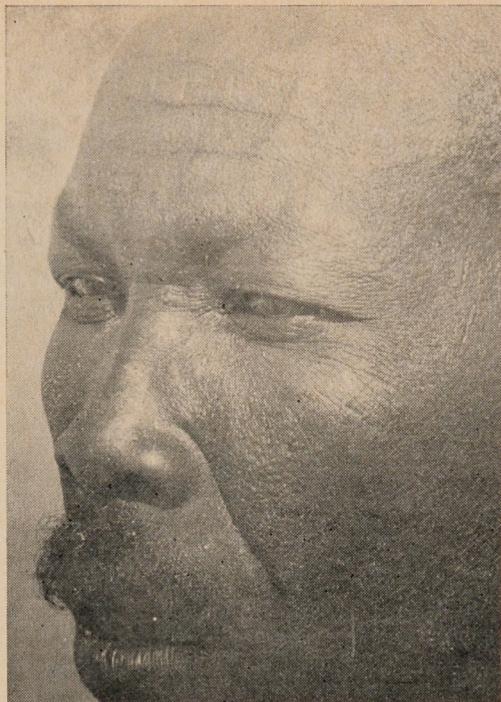
Even though most cauterizations were also performed in childhood, there was an obvious shift towards higher age groups as compared to incisions, which can partially explain the very low frequency encountered in school-children by Valšík and Hussien (1973). Out of the total number of 41 questioned individuals cauterization was applied at the age of 0—2 years in two cases (4.88 %), at the age of 3—6 years in five cases (12.20 %), and at the age of 7—14 years in eight cases (19.51 %). To this number should be added further seventeen cases (41.46 %) designated simply “during childhood”. Thus altogether 78.05 % of individuals were subjected to this practice during childhood. The remaining cases were cauterized either in adolescent age of 15—20 years (6 cases, i. e. 14.63 %), or in adult age above 21 years (3 cases, i. e. 7.32 %).

Our studies disclosed that in contrast to incisions, cauterizations were carried out in 28 individuals predominantly by specialists, mostly by Arab males (11 cases, i. e. 39.29 %) who operated upon members of other ethnic groups as well, further by Kenuz males (5 cases, i. e. 17.86 %), by generally “Nubian” males (5 cases, i. e. 17.86 %), or “Nubian” females (2 cases, i. e. 7.14 %), by a Fadidja male (one case, i. e. 3.57 %) and by a Ababda male (one case, i. e. 3.57 %). One individual went for this treatment to Saudi Arabia (3.57 %). The next of kin — the mother or an uncle — applied this treatment only exceptionally (7.14 %).

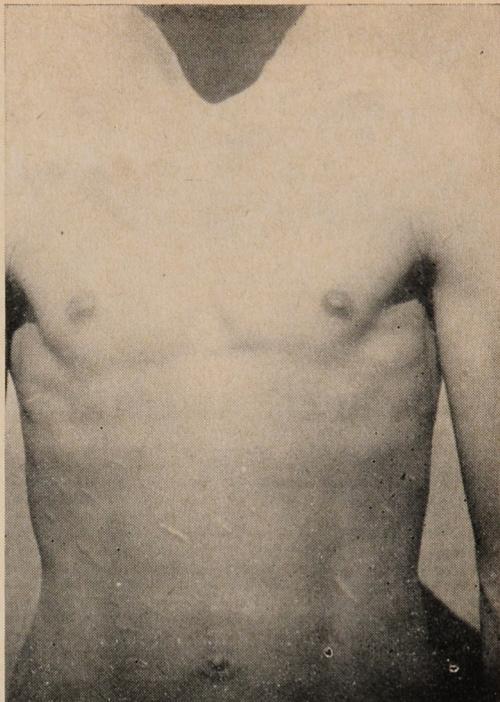
While in the questioned individuals incisions were carried out with a razor, a hot iron nail was used mostly for cauterization.

#### References

- STROUHAL E.  
1970 Age Changes of some Metrical Features in Nubian Men. *Materialy i Prace Antropologiczne* 78: 179—190.
- STROUHAL E.  
1974 editor: Egyptian Nubians. Papers read at the Symposium on the results of research in ethnic anthropology. *Sborník Národního muzea v Praze* vol. XXX B: 73—110.
- VALŠÍK J. A., HUSSIEN F. H.  
1973 Popular Medicine and Traditional Mutilations in Egyptian Nubia. *Ethnomedizin* II/3—4: 217—228.



A



B

**Plate 1** Examples of incisions:

A. on the front and laterally from the orbits, Fadidja (of Negro origin), 45 years old,

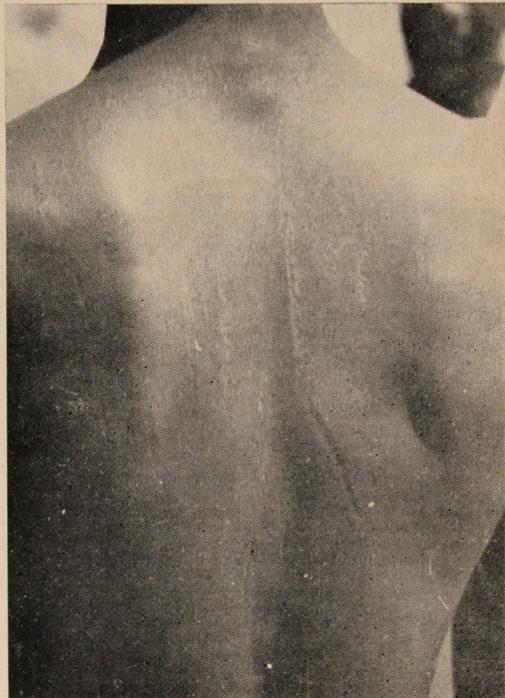
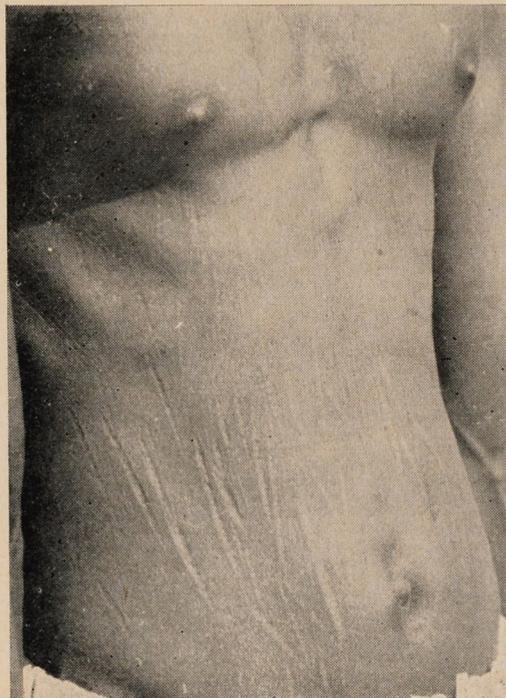
B. on the abdomen, Fadidja, 20 years old,

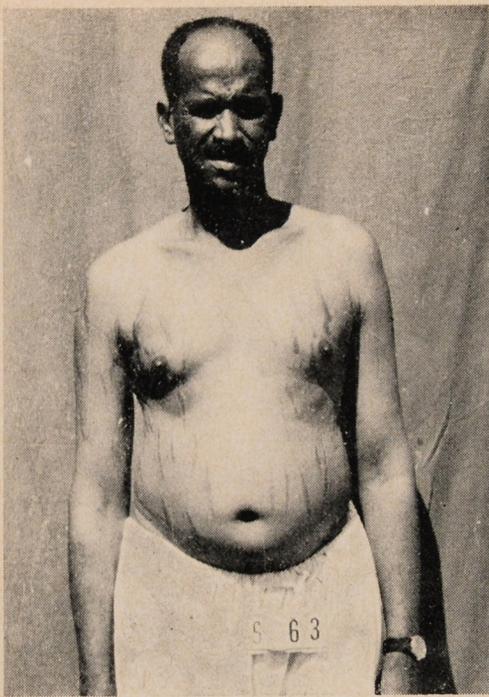
C. on the chest and on the abdomen, Fadidja (of Negro origin), 36 years old,

D. on the back, Fadidja (of Negro origin), 36 years old.

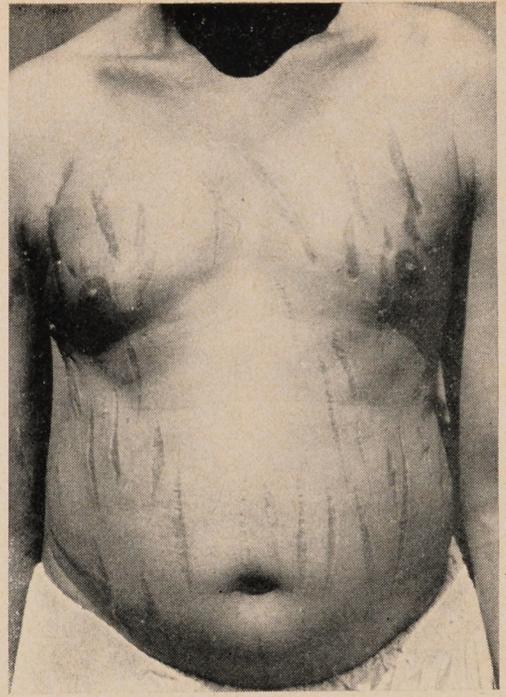
C

D





A



B

**Plate 2** A case of multiple incisions, Fadidja, 40 years old:

A. in the frontal view,

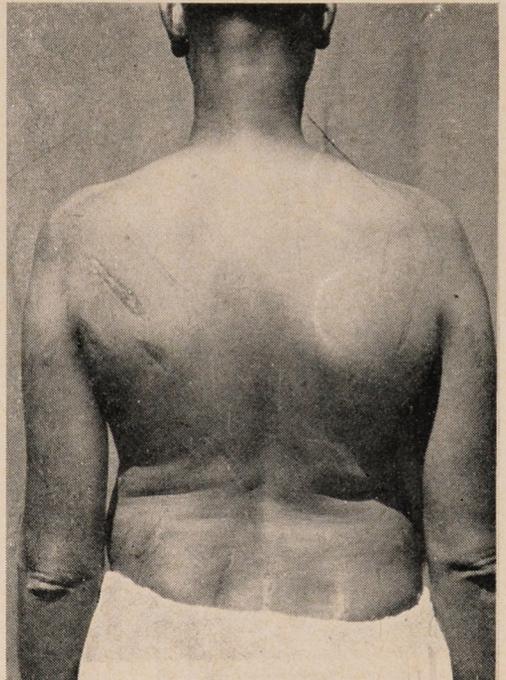
B. detail of the incisions on the chest and on the abdomen,

C. detail of the incisions on the right arm and on the right lateral side of the chest,

D. detail of the incisions on the back.

C

D





A



B

**Plate 3** Examples of cauterisations:

A. on the upper thoracic spine, Fadidja, 42 years old,

B. on the nape, Kenzi, 23 years old,

C. on the lower thoracic and on the lumbar spine, Kenzi, 22 years old,

D. over and under the navel, Kenzi, 21 years old.

Photos by the author

C

D

