

tion of exudate in the right lower part of the pericardium is usually small in comparison. This would seem sufficient reason for not choosing the fifth right intercostal space (Rotch's Point) as the site for paracentesis. Likewise for the same reason the various points to the left of the sternal border, either inside or outside the internal mammary artery, are unsuitable. Furthermore, the dangers of wounding the heart are greatly increased in this region.

The region most commonly chosen (Curschmann, Zinn, West, Sears, and many others) is the fifth or sixth interspace, 2-3 cm. outside the nipple line and inside the outer limits of dullness. The position is one of the most favorable for drainage of the pericardium and the chances of injury to the heart very slight. The needle introduced at this point may transfix the pleura, but this accident is of little or no importance.

One other point of puncture has come much in favor of late, namely, the sub-xiphoid of Marfan.⁴⁴ The advantages of this method as stated by Marfan are as follows. 1. The distended pericardial sac lies very close to the xiphoid and is very easily entered; 2. The sac is punctured at its lowest part and can therefore be more easily and completely drained; 3. There is no danger or injury to the heart; and 4. There is no possibility of entering the pleural cavity. Blechmann⁴⁵ and Rieux⁴⁶ believe this to be the most satisfactory and safest method.

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A SECOND NOTE ON THE FREQUENCY OF EPILEPSY IN THE OFFSPRING OF EPILEPTICS.

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SINCE publishing my early investigations concerning the Frequency of Epilepsy in the Offspring of Epileptics,¹ it has been my privilege to have the aid of a social worker to check up the results of my previous work. The fact that in only 8 of the 138 matings, where one or both parents were epileptic, did the offspring develop epilepsy was indeed surprising. Yet, when the ancestors of this same group were studied with the same point in view, direct similar heredity, there again were only eight cases, or 5.8%. But, as I explained in my previous article, the data I obtained were largely through correspondence and personal interviews with friends and relatives of the patients and, therefore, subject to many sources of error; and had they not diverged so widely from the only other similar research work, that of Echeveria,² I should have hardly considered them worthy of publication.

The following table will show at a glance to what a marked degree our results differed.

Investigator	Married Epileptics	Males	Females	Number Children Begot	Died in Infancy	Conversions	Epileptics
Echeveria	136	62	74	533	195		78
Thom	138	68	70	553	6		4

That 273 offspring out of a total of 533, or over 51%, should have developed epilepsy, seemed more startling to me than my own figures of only 10 epileptics in my total of 553 offspring, or less than 2%.

My purpose has been to make a more intensive study of the cases already reviewed, to determine, if possible, to what extent epilepsy is transmitted directly from parent to offspring. The 33 cases I wish to report include 7 of the 8 matings where the resulting offspring were epileptic, and the total of 10 epileptic children include 8 of those reported in my last paper. In other words, the field worker uncovered two more cases of epilepsy in her more exacting study of these 33 cases than I did by my less accurate method. Of these 33 cases, 13 were male and 20 female. Thirteen cases, including 11 females and two males, had their epilepsy before marriage; 19 cases, 11 males and 8 females, had their first convulsions after marriage. The 33 matings resulted in 133 offspring, 86 of whom are living and 47 are dead. Of the total of 133 offspring, there is a history of convulsions in 10, five having died in infancy during seizures, two becoming arrested cases and three confirmed epileptics.

The causes of death in the cases of the deceased were as follows:

Infantile convulsions	5
Diphtheria	5
Tuberculosis	5
Indigestion	5
Malnutrition	2
Scarlet Fever	1
Purpura	1
Meningitis	1
Unknown	9
Unascertained	13

47

The present age of the surviving children is as follows:

Under 1 year	1
Between 1 and 5 years	10
" 5 " 10 "	14
" 10 " 15 "	10
" 15 " 20 "	11
Over 20 years	40
	86

This group of living offspring whose parents, one or both, were epileptic contains 46 cases still under 20 years of age, and in the epileptic zone. What per cent. of these cases will develop epilepsy no one can say at this time, but it is not probable that it will be 50%. Of the cases over 20 years of age, heredity will play a much less important part. So it appears that the results of the earlier work have been to a large degree substantiated by this more intensive study, and that the conclusion that epilepsy is less often transmitted directly from parent to offspring than we have heretofore been led to believe is justified.

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ARTIFICIAL HELIOTHERAPY: THE MERCURY-VAPOR-QUARTZ LIGHT A VALUABLE THERAPEUTIC AGENT.

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Is sunlight or is heliotherapy of real value in medicine? This question has been pretty conclusively answered in the affirmative. It appears that the live agent or active principle in producing the good results is the action of the blue rays in producing a pigmentation of the skin, the pigment then in some manner becoming a circulating metabolic rectifier; thus in Switzerland it has been noted that tubercular patients recovered, and that their prognosis varied with the rapidity and ease of pigmentation of their skins.

If blue light is the active agent, it follows that any method which delivers blue light to the skin is a valuable substitute for heliotherapy, the more so as any electrical method is always available, whereas the sun, at most, is available only at certain hours, even when not obscured by smoke, fog, or clouds.

It is known that the mercury-vapor arc generates plenty of short-length actinic rays. It is also known that quartz is a substance, and one of the very few, not opaque to the blue rays. It is, therefore, theoretically possible to produce a light which will deliver at the skin blue light not associated with excessive heat. At least one such lamp has been for some time available.

To produce pigmentation is to reproduce the effect and to promise the results of which actual sunlight is capable. The only question remaining, therefore, before being forced to admit the value of such a lamp, is whether it really does produce in action a rapid pigmentation of the skin exposed to its rays.

One of the lamps in question has been in use in my office since mid-August. Employed in connection with graduated heat from incandescent carbon filaments, as a metabolic stimulant for asthenic chronic intestinal cases, it has been clearly demonstrated that the light of this lamp actually does produce very rapidly a redness, even to blistering and peeling of the skin, and soon results in the acquisition of a pigmentation of the skin not to be distinguished from that obtained by much longer exposure to actual sunlight.

The lamp is, in fact, so active that a five-minute exposure at a distance of a metre or so may result in a sensitive skin turning, as one patient expressed it, "as red as a lobster," by the end of twenty-four hours.

Since many patients will find it not only more convenient, but actually a saving of time, to have their skins tanned by artificial heliotherapy, in a quiet room, regardless of the time of day or night, and since it is proved that the lamp does produce the all-important pigmenta-