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Reprinted from *The Indian Medical Gazette*, Vol. XLI

(No. 8, August 1906).

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HIRSCHBERG in the *Centralblatt für Praktische Augenheilkunde* (Feb. 1, 1894) gave his views on "The Cataract-pricking of the Hindus." He was unfortunately handicapped by his ignorance of the native of India, and of Indian ways and customs. Maynard, in the *Ophthalmic Review*, April 1903, published 63 cases which he had collected in mofussil practice. He found that 46 p. c. of his cases had retained good vision for an average period of 4·88 years. In his summary he supports Mr. Power's conclusion that "under certain circumstances" the operation of 'depression' "would be at least allowable, if not advisable". Power's views were stated in the *B. M. J.*, 1901, p. 1260, and in the *Ophthalmic Review*, Vol. XXI, p. 131.

Castilley Quartillera in the *Arch. de Oftal Hispano-Americanos*, Oct. 1904, considers that couching is justifiable under certain circumstances, and discusses the best method of operation. Major Smith in the *Transactions* of the *Ophthalmological Society*, 1904, p. 264, gave his opinions on the subject. He was of opinion that "lens couching at the present time is an operation which should not be practised outside the ranks of charlatans." It is unfortunate that he did not give the figures on which his conclusions were based. Basso of Genoa advocates 'couching' in *La Clinica Oculista*, Janvier, 1904, and describes his improvements on Albertotti's method. His description of the post-operative complications (secondary glaucoma and rising of the lens across the pupil) would make most surgeons hesitate to copy his method. Finally, in May 1905, Maynard replied to Smith in these columns, maintaining his original position. The Editor at the same time invited further discussion.

There appear to be two distinct questions that interest us as Indian surgeons: *viz.*, (1) what results attend "couching" in the hands of the *vaithyan?* and (2) is couching ever a justifiable operation in our own hospitals?

I must own that I read Maynard's article with astonishment; the results of the operation as seen by him were so much more favourable than those one sees in the South of India. I accordingly set to work, and in the last 2 years have collected and carefully tabulated all the cases I have met with.

It is important to bear in mind that a very large percentage of these people did not come to hospital for the eye which had already been

operated on, but for the other. This is due to the fact that they recognise our reluctance to interfere with an eye which the coucher has spoilt. Indeed, one only undertakes the care of such eyes with the greatest hesitation, knowing that the discredit of the whole failure will be fathered on the English hospital by the *vaithyans*, who are as unprincipled as they are ignorant.

The cases now number 125. A review of the statistics I publish will fully bear out my pessimistic estimate of the South Indian coucher's results. It may be urged that one only sees his worst cases, and his failures in an English hospital. This is to some extent true. I may say that I have been on the watch most carefully for all eyes with couched lenses, and I think I have missed very few of the good results. One must remember that the ignorance and stupidity of the ryot is so great that he will not very infrequently try one eye in an English hospital and one in a *vaithyan*'s hands. It is a common thing for a native patient to deny ever having visited a native doctor when he first comes to hospital. After the other eye has been successfully operated on, he will sometimes own up to the fact. I frequently see a case of typical posterior dislocation in which I am confident that the lens has been couched, but the patient will deny it to the bitter end, and I am therefore obliged to eliminate such cases from my statistics, thus bettering the vaithyan's apparent average. When one comes to investigate the cause of shrunken eyeballs, the same thing holds even to a greater extent. If an observer, in collecting such statistics, fails to enquire closely into the cause of every shrunken eye he meets, he will credit the vaithyan with an undue per-

centage of successes. Even when one is on one's guard, one is probably often deliberately deceived. I am sure I am. The difficulty of getting a true history of a case is proverbial in the South of India at least.

I do not say that the lamentable results here published are the best the vaithyan can do, but what one hears of his methods would not encourage the belief that he is likely to do any better. Here in the South, there appear to be two classes of operators, the resident men who live for long periods in one bazaar, and the travellers who move continuously from place to place. Both are Mahomedans. The former appear to get somewhat better results than the latter, and are spoken of as "men of experience." The latter seem never to stop long in one place. They collect a number of victims, operate on them and then move on before their sins can find them out. Both kinds of operators seem to be innocent of any attempt at securing asepsis or antisepsis; they use a dirty needle or a sharp wooden skewer; no anæsthetic is employed; a bandage is kept on for 10 days, and counter-irritation is freely resorted to, to combat iritis, &c. Many of the victims are ashamed to come to a European hospital after the failure of their hopes. It has been said that if the vaithyan did not get good results he would be dropped, and the practice would die out. This remark can only have come from one who knew nothing of the Indian character, or the crass ignorance of the lower classes of the people. It is hard for those who have not lived and worked amongst them to realise how easily the ryot falls a dupe to impudent self-advertisement. He is a simple kindly person, whose implicit trust in confident self-assertion will bring him to grief for many another

generation. The vision of these poor unfortunate people sitting down in a dusty bazaar to let an ignorant charlatan thrust a dirty needle into their blind eyes has evoked the indignation of the English surgeon from the time of our first occupation of the country. Side by side with a well-equipped English hospital, which turns out its ninety odd per cent. of useful vision, there sits in the neighbouring bazaar even to-day the charlatan, whose fee is fixed at anything from 3*d.* to 8 shillings, plus, in every case, a fowl or other animal. The latter is ostensibly for sacrificial purposes, but I understand ends uniformly in the vaithyan's curry-pot. Weirdest perhaps of all the vaithyan's methods is the use of the saffron-coloured rag, with which pus is wiped away from the patient's inflamed eye. On this colour the pus, &c., cannot be seen, and therefore all is well. It is the fabled ostrich again, only this time in real life, and with vital interests at stake.

The following statistics show some of the points which are elicited by my examination of 125 consecutive cases which have been met with in my hospital and private practice:—

Statistics of 125 Mahomedan Operations.

Mahomedan males ...	...	7	
Mahomedan females...	...	3	
			10
Hindu males ...	...	67	
Hindu females ...	...	48	
			115
	Grand Total		125

It is noteworthy that none of the patients were Europeans or Eurasians.

The scanty number of Mahomedans who submitted themselves to operation is probably

to be accounted for by relative population numbers—

Ages—when they came under observation.	25 yrs.	...	2
	26—30	...	3
	31—35	...	3
	36—40	...	12
	41—50	...	47
	51—60	...	36
	61—70	...	18
	71 and above	...	4
		Total	125

Period which elapsed between the Mahomedan operation, and the patients coming under observation—

Less than 1 month	...	in 5 cases.
From 1-6 months	...	in 20 cases.
From 7-12 months	...	in 9 cases.
1 year after ...	...	in 17 cases.
2 years after ...	...	in 15 cases.
3 years after ...	...	in 16 cases.
4 years after ...	...	in 11 cases.
5-10 years after	...	in 27 cases.
10 years and over	...	in 5 cases.
Total		125 cases.

State of Vision when the patients came under observation.

V $\frac{1}{4}$—$\frac{1}{10}$	...	...	in 16 cases.	
V $\frac{1}{10}$—$\frac{1}{50}$	...	...	in 11 „	
V Marked as good, but records unfortunately mislaid		...	in 2 „	
		Total	... 29	or 23·2%
V Counted fingers at 2 ft or less			10 cases	or 8 %
V Hand-movements only...			18 „	or 14·4%
V *Nil* ...		...	68 „	or 54·4%
		Total	... 125 cases	or 100 %

We may therefore classify the results as follows :—

Successes	29 or	23·2%
Partial successes	10 or	8·0%
Failures	86 or	68·8%
Total ...	125 or	100%

It is of interest to examine the failures and partial successes separately.

The causes of failure arrange themselves as follows :—

(1)	Iritis and irido-cyclitis ...	in 52 cases
(2)	Glaucoma	in 17 ,,
(3)	Imperfect dislocations of the lens	in 13 ,,
(4)	Detachment of the retina ...	in 2 ,,
(5)	Vitreous opacities (probably secondary to some affection of the uveal tract)	in 1 case.
(6)	Optic atrophy	in 1 ,,
		86 cases.

The commonest cause of failure is seen to be iritis and irido-cyclitis. Moreover in 7 of the cases classed as successes or partial successes, there was evidence that iritis had followed the operation. Even this does not complete the tale, for I feel sure that some of the shrunken eye-balls met with were due to Mahomedan operators' interference, though the patients would not admit it. A knowledge of our attitude towards the "coucher" makes the native patient very reluctant to confess to having been so foolish as to have placed himself in the hands of one of these men. Under the circumstances, one can only omit such eyes from one's statistics, to the obvious and undeserved credit of the charlatan.

Seventeen cases of failure are attributed to glaucoma. Beside these, there was a patho-

logical increase of tension in 9 other cases out of the whole 125. Of these 2 fall under the partial successes, and 7 under the successes. Confining ourselves for the present to the failures, we find that in 5 cases out of the 17, there was a clear history of glaucomatous symptoms before the couching took place. In these 5 at least it would appear that the operator mistook glaucoma for cataract. There are 2 other cases in which the patient came to hospital with glaucoma in the unoperated eye, giving rise to a suspicion that in them too the same error in diagnosis had been made. One cannot, however, speak with absolute certainty. In any case we are left with ten cases (8·0% of the total), in which the operation appears to have given rise to a pathological increase of tension.

Imperfect dislocation accounts for 13 failures, 10·4% of the whole number. In these cases the operator had failed to get the lens out of the way of the line of sight. In 7 cases the lens was fixed, whilst in the remaining 6 it lay flapping across the pupil. It is of interest to remember that Basso found the rising of the lens back across the field of sight one of the causes of failure in his series of cases.

In the 2 cases in which failure is attributed to "Detachment of the Retina," it is very hard to say with certainty, whether this accident was the consequence of the operation, or whether it existed beforehand, and misled the operator into a false diagnosis of "cataract." In both cases it seems probable that a mistake was made, for the patients were totally blind before operation, and had not even perception of light at any time afterwards.

In one case vitreous opacities hid the fundus. Their cause could only be guessed.

In one case there was well-marked optic atrophy, and from the history it seems more than probable that this condition was present before the operation and misled the hakim. There was a corresponding condition of atrophy in the opposite untouched eye.

I have looked in vain for any signs of the "slow and steadily progressive degeneration of the vitreous and of the retina," which Smith described as "the invariable sequence" of couching. I do not think that such a condition exists in the eyes operated on in the South of India. I am still carefully on the look-out for it.

Of the 86 cases returned as failures, 30 stated that they had experienced some improvement in vision immediately after operation. Of these, one retained useful visual power for 2 years; his sight then failed, and when he came under observation, he could only count fingers at 5; the T of the eye was plus 2. A second retained vision for one year; when he was observed V was hand-movements only, and the eye showed signs of old irido-cyclitis. A third had useful vision for 9 years after the couching; he likewise came under observation with V only hand-movements, and with signs of old irido-cyclitis. The remainder appear to have counted their period of improved vision in days, and no more.

Turning next to the 10 cases, which have been classed as "partial successes," one finds that in 5 of them (50% of the number) there was evidence that iritis or irido-cyclitis had complicated the after-course of the convalescence. In 2 of these the tension of the eye was low, and in one it was increased. In 2 other cases the tension was pathologically high; in one it was patholo-

gically low, and in 2 I am not prepared to assign a cause for the failure.

An obvious indication is to obtain any eyes removed for one cause or another, after Mahomedan operation, and to study such by means of sections. It is very difficult to obtain such eyes. If any Indian mofussil surgeon has the opportunity of securing such specimens, and will place them in 10% formalin solution, and send them to me, I will be greatly obliged to him, and will fully acknowledge my indebtedness.

The question of the advisability or otherwise of recognising "couching" as a "justifiable operation" next comes up. It will be well, in the first instance, to review the causes of failure. In the figures given herewith, these will be observed to be (1) septic inflammations of the uveal tract; (2) glaucoma; and (3) insufficient dislocation. The first class of cases are probably almost wholly avoidable. In dealing with the second, one is a little handicapped by the doubt which one must feel as to the method of causation of the glaucoma. In some cases at least, it is probably due to irido-cyclitis, and such might be eliminated by careful asepsis. Not a few, however, seem to arise independently of any such condition.

The fact that Professor D. Basso met with secondary glaucoma as an embarrassing post-operative sequel, is of considerable interest. His explanation is that the forward displacement of the vitreous, and its "enclavement" in the pupillary area, hinder the free communication between the anterior and posterior chambers, and so give rise to an alteration in the tension of the eye. The explanation is worthy of consideration. It is perhaps permissible to diverge for an instant to mention that in another respect

his experience coincides with my own, inasmuch as he does not appear to have seen anything of the retinal or vitreous degenerations on which Smith lays so much stress.

I come now to Power's indications for "depression" as stated in the *Indian Medical Gazette*, May 1905, p. 194. I take them class by class.

(1) *Very feeble and infirm persons, in whom a wound might perhaps not heal at all.*—My own practice is to hand such cases over to a competent physician for treatment, and to perform an extraction when the patient's health has been improved thereby. I have not met with a case of this kind in which the alternative of couching seemed to me to be justifiable.

(2) *Very deeply set eyes with narrow palpebral fissures, or those in which some similar mechanical difficulty in the way of a good extraction exists.*—Like many other Indian surgeons, I have had the opportunity of removing several thousand cataracts, and I cannot recall one case in which I would have felt justified in resorting to "couching" rather than face the difficulties of the operation. I believe that in this the Indian operators will be, with but very few exceptions, at one with me. It is not as if couching was in itself a perfectly simple and safe precedure.

(3) *Chronic conjunctivitis which refuses to yield to treatment, and the presence of dacryocystitis.*—India may be said to be one of the homes of conjunctival inflammations, and yet I have not met a case of conjunctivitis which refused to yield to treatment. It is merely a question of time and of resource on the part of the surgeon, and I would rather take three mouths to cure the case and then treat it

on sound lines, than couch the lens. In fact, I find that from time to time the care of a troublesome conjunctiva takes months. It is a toil I never begrudge.

As to lachrymal obstruction, the same remarks apply. As a rule I remove the sac. If there is obstruction without evidence of regurgitation, I slit up the canaliculi, destroy their lining with a cautery and allow their lumens to close by granulation, before attempting extraction. I can find no record of a case of extraction having been lost owing to lachrymal obstruction, and I have operated on a number of such.

(4) *Extreme deafness.*—I have operated on a number of very deaf patients, and I think Power exaggerates the difficulty. Doubtless a tyro or a clumsy operator might be at a loss. He will be much better advised, however, if instead of resorting to couching, he places his patient under chloroform, or runs a conjunctival suture round the lower half of the corneal circumference, as close to the cornea as possible, and then operates as usual. This manœuvre enables him to have perfect control of the eye, without risking a vitreous escape, and without the assistant, who holds the thread, being at all in the way. Since I learnt this method of controlling the eye, chloroform extractions have lost all their drawbacks, save the tiresome delay the anæsthetic entails.

(5) *Patients of unsound mind, or those mentally deficient.*—The remarks in the previous paragraph again apply. After extraction I keep them drowsy with a mixture of chloral and bromide.

(6) *The fat, flabby, and phlegmatic, especially if gouty, who do not stand operation well.*—Again, I think Power has exaggerated the dangers

of extraction and underestimated the drawbacks of couching. The patient should, in my opinion, be got into as good a state of health as possible, and extraction then performed.

(7) *Chronic bronchitis with much coughing.*—In India, at least, a time of year can always be found, in which the cough gives a minimum of trouble. One would think that the same must hold for most countries. If the cough is tubercular, it is open to doubt whether any operation would be justifiable till everything possible had been done to treat the main condition.

(8) *Complications, such as tremulous iris, fluid vitreous, &c.*—Here again it is a question of the operator's skill. A deft surgeon will easily combat difficulties, which with another less able might lead to disaster. My own practice is to use a vectis at once if the vitreous is fluid or if the lens tends to fall back. Major Smith has described elsewhere his method of dealing with the same difficulties. To resort to couching under these conditions would be, to my mind, a confession of incompetence, which I believe few Indian surgeons would care to make.

9. *When the other eye has been subjected to extraction and has been lost.*—I meet with not a few such cases, and I can confidently say that no such idea as resorting to couching would ever cross my mind. In dealing with such a case, one redoubles one's precautions, and endeavours to find out the cause of the previous failure if possible. Time in treating complications becomes a matter of no consideration; the patient's health is carefully attended to, the conjunctiva is cleaned at the time of operation with, if possible, more than usual care, and any precaution which experience can

suggest is taken. Then an extraction is performed.

10. *The hæmorrhagic diathesis.*—I am glad to say that my experience in this direction is very small, but I cannot help entertaining a doubt whether an operation which tears the lens from its bed and forces it back into the vitreous, would be likely to lead to a successful result in a 'bleeder.'

To sum up.—Whilst I cannot go as far as Smith, in saying that couching of the lens is an operation "which should not be practised outside the ranks of charlatans," I feel almost as strongly as he does on the subject of it being discussed as '*a justifiable operation*' under any circumstances for the Indian surgeon. With our great opportunities of acquiring manual dexterity in extractions, it would, to my mind, be a disgrace to us to advocate under any circumstances an operation of this nature. Whether those who possess in a lesser degree the confidence of their hands may resort to such measures is another question. It is one they alone can decide. At the same time, I desire to combat the view that "couching" is a safe and harmless procedure. Experience not only of the results of Indian vaithyans, but also of those of a European surgeon show it is not. Grave dangers attend it, and we may not undertake it light-heartedly. I consider that to advocate couching under any circumstance would be to set the clock of progress back many decades, and to confess a lamentable want of confidence in the dictates of sound surgery.

If I rightly apprehend Maynard's position, his defence of this suggestion has sprung from loyalty to his old teacher, and his interest in it has been academic, and not practical. I should be surprised to learn that he really couches lenses

under any circumstances. Holding the important position he does, it would be of interest if he would restate his views on the subject, telling us, not what "might be," but what "actually is," in his practice.
