

Original Articles.

REVIEW OF A YEAR'S MEDICO-LEGAL WORK IN THE CALCUTTA MORGUE, 1911.

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DURING the year 1911, no less than 356 cases were sent up by the police for *post-mortem* examination (against 283 in 1910), as cases in which death appeared to occur under more or less suspicious circumstances.

TABLE I.

Distribution of the (356) cases according to months and quarters of the year :—

January	... 24	} = 71 in the first quarter.
February	... 23	
March	... 24	
April	... 29	} = 105 " second "
May	... 39	
June	... 37	
July	... 33	} = 92 " third "
August	... 29	
September	... 30	
October	... 29	} = 88 " fourth "
November	... 33	
December	... 26	
Total = 356 = 356		

TABLE II.

Number of cases according to sex :—

Males	... 272
Females	... 84
Total	... 356

TABLE III.

Number of cases according to race :—

Hindu	... 236
Mahomedan	... 62
European	... 15
Eurasian	... 17
Chinese	... 2
Japanese	... 1
Indian Christian	... 6
Doubtful or unknown	... 17
Total	... 356

TABLE IV.

Number of cases according to age-periods :—

At or about the time of birth	... 14
Up to and including 1 year of age	... 6
Above 1 and up to and including 5 years	... 11
" 5 years	... 11
" 10 "	... 17
" 15 "	... 42
" 20 "	... 43
" 25 "	... 41
" 30 "	... 45
" 35 "	... 37
" 40 "	... 25
" 45 "	... 22
" 50 "	... 8
" 55 "	... 19
" 60 "	... 4
" 65 "	... 7
" 70 "	... 1
" 75 "	... 0
" 80 "	... 1
" 85 "	... 1
" 90 "	... 0
" 95 "	... 1
Total	... 356

TABLE V.

Number of inquests held.

The City Coroner held an inquest in	... 250 cases.
No inquest was found to be necessary in	... 106 "
Total	... 356 "

TABLE VI.

The viscera preserved at the time of *post-mortem* examination were disposed of as follows :—

Sent to the Chemical Examiner to Government for analysis	... 133
Destroyed after disposal of the case, under instructions from the Commissioner of Police	... 223
Total	... 356

TABLE VII.

Result of Chemical Examiner's analysis in 133 cases :—

Poison found (including cases in which alcohol only as differing from other poisons found) in	... 73
No poison found in	... 60
Total	... 133

TABLE VIII.

Analysis of the 73 cases of poison found by the Chemical Examiner :—

Opium	... 40 cases.
Alcohol only	... 10 "
Opium and alcohol	... 2 "
Morphine and alcohol	... 1 "
Cocaine and alcohol	... 1 "
White arsenic (including 2 cases in which "rough on rats" was used)	... 4 "
Yellow arsenic	... 2 "
Carbolic acid	... 3 "
Sulphuric acid	... 1 "
Hydrocyanic (or prussic) acid	... 2 "
Cyanide of potassium	... 3 "
Aconite	... 2 "
Strychnine	... 1 "
Red sulphide of mercury (China-sindur or vermilion)	... 1 "
Total	... 73 "

The above table calls for a few remarks on points of interest. Thus, opium still maintains the first place among poisons found by the Chemical Examiner in the viscera and stomach-contents sent to him for analysis from the Calcutta Morgue. It alone accounts for 54.7 per cent. of all cases in which poison was detected (against 56.6 per cent. in 1910), excluding those cases in which opium was discovered in combination with alcohol.

Again, it may be observed that among the arsenic cases "rough on rats" accounted for two deaths, one of which, as will be seen later, was of a suicidal nature, while the other was accidental.

Further, in Table VIII is included a case of death from (acute) poisoning with the red sulphide of mercury ("cinnabar"). This is evidently of rare occurrence, as a well known text-book referring to this poison states that "no acute case of poisoning by it in man has been met with," although chronic cases have occurred. The present case is the only one I have been able to record. It took place in August 1911, in a Chinaman, 30 years of age, but whether the poison was taken suicidally or not, the evidence

was not sufficient to show, and the jury therefore left the verdict on this point "open."

It may be of some interest at this time to examine the cases of death by poisoning with the cyanides. Five cases of this nature occurred in 1911 and two in the preceding year, and in not one of these was death found to be homicidal. Indeed it may safely be urged that in all cases of poisoning by means of the cyanides, the presumption is against homicide. For it appears inconceivable that any poisoner taken from the intelligent ranks of life, no matter how great a novice he be at the art, would entirely omit to consider the question of selecting a poison with suitable physical characters, and would moreover select, above all, *the* most unsuitable for the purpose of homicide. The fact that the well-known compounds of prussic acid have such a strong and piercing odour, would at once put him off the use of it, as he would doubtless fear the consequences of a detection of the poison by the intended victim, and of an alarm being raised at a time, perhaps, a little inconvenient for himself. The odour of the poison is so penetrating that I have never failed to detect its presence by the sense of smell when standing near the face of the unopened body, even several hours after death, not to mention the various parts and tissues of the body when once it was opened or the stomach and its contents. So far as concerns the power of locomotion and of volition in the interval between the taking of a fatal dose and the occurrence either of insensibility or of death, it is very difficult indeed to make a definite statement which will apply to every case, and I can find no such statement made by any authority on the subject. So much appears to depend on the dose of the poison, on the state of the stomach, on the general physical condition of the person taking the substance, etc. Even the exact mode in which death is caused by these substances, has been the subject of much discussion. Stevenson has recorded a case in which death from hydrocyanic acid did not occur for an hour and a quarter (Guy's Hosp. Reps., 1869). The power of locomotion and of performing volitional acts is not necessarily a matter of great importance in deciding between suicidal and other cases, for, presuming in any particular instance that a person is resolved on self-destruction, he may quite easily, *before* taking the fatal dose, destroy documents in the fire, tidy up his room, do away with the phial and lay himself out in bed. The points I wish to accentuate in reference to this set of poisons are (1) that in death from their effects the presumption is in general strongly against homicide (except when associated with violence), is distinctly against accident (except perhaps where a child is concerned), and decidedly in favour of suicide, and (2) that nothing definite can be stated regarding the power of locomotion and volition in the interval between the taking of the poison and the onset of insensibility or the occurrence of death. All

that has been said regarding the cyanides applies also to the acid,—hydrocyanic or prussic acid or hydrogen cyanide, but perhaps in a somewhat modified manner. The odour of this acid as found in commerce is not so strong that it cannot be masked by mixing with a large quantity of say wine and water. Thus it may be made to elude the observation of the intended victim when administered homicidally. Still I hold that it would probably be an expert poisoner alone who would know this and who would elect to use it in spite of its characteristic odour. If I might refer to a recent case of death due to this poison, I should like to state as my opinion that whether death in that case was actually suicidal or homicidal, certain it appears that all the circumstances immediately surrounding the death itself could be quite satisfactorily explained on the theory of suicide.

TABLE IX.

The total number (356) of cases sent up for *post mortem* examination, classified according to nature of death:—

I.—Natural causes—	
Cases where no inquest were held	... 102
Cases in which an inquest was held	... 43
	145
II.—Violent deaths (including deaths by poisoning)	
... 211
	Total ... 356

In the year under review there was a great increase in the total number of *post-mortem* examinations made, as compared with the year 1910. Fortunately, from the point of view of crime in Calcutta, this was mainly due to an increase in the number of cases in which death resulted from natural causes, the percentage of these being 39.7 in 1911 against 32.1 in 1910.

TABLE X.

The 211 violent deaths classified—

1. Deaths by accident or misadventure	... 90
2. Suicidal cases	... 78
3. Homicidal cases	... 14
4. Doubtful (on the evidence adduced)	... 25
5. Due to rash and negligent acts (generally without suicidal intent)	... 4
	Total of violent deaths ... 211

The noteworthy feature in this table is that both the actual number of homicidal cases and the percentage ratio which this bears to the total of violent deaths, have diminished in 1911 as compared with the year previous, while the suicides have increased appreciably. There were 67 suicides in 1910 bearing a percentage ratio 34.8 to total number of violent deaths which occurred during that year, whereas the corresponding figures for 1911 have gone up to 78 and 36.9 respectively.

Analysis of the deaths due to natural causes.—The causes of death in these cases were, on the whole, very similar to those reported last year, except that in place of embolism of the

pulmonary arteries, and cerebral tumour, there occurred cases of thrombosis of the lateral sinus, cholera and intussusception.

As before, in a few instances, alcohol, alcohol with a trace of opium, or opium in traces, was found in the viscera by the Chemical Examiner, and yet the cases were returned, on the medical and general evidence, as of death from natural causes, the poisonous substances discovered not being regarded as the cause of death in these cases.

TABLE XI.

Analysis of the 90 accidental (violent) deaths—
These may be arranged in the following manner according to the cause of death:—

1. Poisons—		
(1) Opium	...	4
(2) CO (from charcoal fires)	...	2
(3) Aconite	...	5
(4) Yellow arsenic	...	1
(5) Sulphuric acid	...	15
2. Motor car accidents		5
3. Falls from a height		19
4. Tramway accidents		6
5. Burns		7
6. Drowning		6
7. Carriage accidents		14
8. Railway accidents		6
9. Falls and other forms of accidental violence occurring on boardship		3
10. Fall on a person of a weighty object from a height		6
11. Carriage and tramcar collision		0
12. Bullock cart accidents		1
13. Bicycle accidents		0
14. Suffocation		0
15. Exposure after over indulgence in alcohol		0
16. Accidental wounds becoming septic and followed by septicæmia		2
17. Accidental wounds followed by tetanus		1
18. Snakebites		1
19. Goring by a bull		1
20. Gunshot (bursting of a barrel)		1
21. Explosion of fireworks		1
TOTAL		90

TABLE XII.

Analysis of the 78 suicidal (violent) deaths:—

1. Poisons—		
(1) Opium	...	33 (42.3 per cent. of total suicides).
(2) Cyanides	...	4
(3) White arsenic	...	3
(4) Carbolic acid	...	4
(5) Morphine	...	1
(6) Yellow arsenic	...	1
(7) Strychnine	...	1
		47 (60.2 per cent. of the whole).
2. Hanging		19 (24.3 per cent. of the whole).
3. Drowning		1
4. Gunshot		4
5. Cut-throat		1
6. Fall from a height		2
7. Burns		1
8. Stabbing		1
9. Strangulation		1
10. Fall on a railway line		1
TOTAL		78

The total number of suicidal (violent) deaths in 1911 was somewhat in excess of that for 1910 (*i.e.*, 78 against 67), as also was the figure for suicidal deaths by means of poisons alone

(47 in 1911 against 43 in 1910). The percentage ratio of the suicides by means of poison, to all suicidal deaths was 64 in 1910, but only 60.2 in 1911, and that of the suicides by means of opium alone to all suicidal deaths was 50 in 1910 and only 42.3 in the year under review. However, the actual number of suicides by means of opium remains much the same for the two years, namely, 34 in 1910, and 33 in 1911. The figures for hanging and drowning have remained extraordinarily constant for the two years in question, numbering respectively 19 cases and 1 case during each year. The general order in the above table remains as before, poisons taking the lead, and opium still remaining far and away the favourite means of self-destruction, while hanging comes second and accounts for 24.3 per cent. of all suicidal deaths (against 28.4 for the previous year). Apart from opium and hanging, the other methods mentioned in the table were together responsible for 26 cases in the year 1911 (against 14 in 1910), 14 belonging to the group of poisons and 12 to diverse other methods. Of the 4 suicidal deaths by gunshot, 2 were committed by Europeans and 2 by Eurasians.

No special remarks are suggested by any of the items in Table XII, excepting opium. Regarding this drug as a means of self-destruction, and the desirability, admitted on all hands, of placing some restriction on the sale of so effective and popular a poison, I find there is nothing I can add to what I have already said in my report for the previous year. It is doubtless a more simple matter to advocate the placing of such a restriction, than it is to suggest an effectual and practicable method of doing so. The fact remains, however, that at the present time any one may procure with the greatest ease as much opium (not to mention other poisonous drugs) as will amply suffice for the purpose of destroying human life,—a condition of things which seems to require some check being placed on it.

The motives for the crime remain the same and at times those ascribed appear really too trivial to be credible. I do not know what I can add to the comments I previously made on this subject.

TABLE XIII.

I.—Opium suicides		33
(a) According to sex—					
Males		...	22		
Females		...	11	{ Prostitute	1
				{ Others	10
			33		
(b) According to age periods—					
		Males.	Females.		
From 10 to 15 years of age	...	0	1		
" 15 to 20	...	9	3		
" 20 to 25	...	6	2		
" 25 to 30	...	4	2		
" 30 to 35	...	1	1		
" 35 to 40	...	1	0		
" 40 to 45	...	1	1		
" 45 to 50	...	0	1		
TOTAL		22	11	+	33

II.—Suicides by hanging 19			
(a) According to sex—			
Males	10		
Females	9	} Prostitute ... 1 Others ... 8	
(b) According to age-periods—			
From 5 to 10 years of age	Males. 0	Females. 1	
„ 10 to 15 „	1	2	
„ 15 to 20 „	1	2	
„ 20 to 25 „	4	3	
„ 25 to 30 „	0	0	
„ 30 to 35 „	2	0	
„ 35 to 40 „	0	0	
„ 40 to 45 „	0	0	
„ 45 to 50 „	1	1	
„ 80 to 85 „	1	0	
TOTAL	10	9	= 19

The greatest number of suicides by these methods were committed between the ages of 15 and 35 years. Opium accounted for twice as many deaths among males as among females, whereas hanging claimed about an equal number of victims from each sex.

TABLE XIV.

The 78 cases of suicidal (violent) deaths classified according to race :—

Hindu	66	
Mahomedan	5	
European	3	2 gunshot. 1 potassium cyanide.
Eurasian	3	2 gunshot. 1 opium.
Japanese	1	(stabbing).
TOTAL	78	cases.

The case of the Japanese who committed suicide by stabbing himself with a knife, is one of some interest. The knife used was 9 inches long in the blade, measuring $1\frac{3}{4}$ inch at its widest part near the handle, and ending in a sharp point. The man lay in bed, and entering the point of the knife on the right side of the neck in front of the sterno-mastoid muscle, he deliberately plunged the weapon in. The knife passed transversely through the neck towards the left, behind the larynx, piercing the œsophagus from side to side and severing the great vessels on the right. The man apparently had just strength enough to withdraw the knife which fell from his hand and was found on the bed a few inches away from his neck, near his right shoulder. This is an instance not only of very deliberate intention in the committing of suicide but also of a remarkably singular way of accomplishing the deed.

TABLE XV.

Analysis of the 14 homicidal (violent) deaths according to mode of occurrence :—

1. Stabbing (including one case done by means of a fish spear)	7
2. Kicks, blows, etc., and falls in consequence	4
3. Strangulation	1 (prostitute).
4. Throttling	1 (newborn child).
5. "Lathi" blows	0
6. Gunshot	1
TOTAL	14

The order in this table remains the same as for the previous year, and stabbing again accounts for the largest number of homicidal cases. In 1911 the homicidal cases, numbering 14, contributed 6.6 per cent. to the total number of violent deaths, whereas in 1910 the corresponding figures were 15 and about 8 per cent. (The total number of violent deaths was 211 in the year under review, and 192 in 1910).

TABLE XVI.

The 25 cases of (violent) death classified as "doubtful" in Table X of this report, represent those cases in which, on the general evidence adduced, the jury found it impossible to arrive at a definite conclusion as to whether the deaths were accidental, suicidal or homicidal in their nature. The verdict of the jury in these cases was therefore left "open."

These 25 cases are accounted for as follows :—

1. Poisons—	
(1) Opium	8
(2) White arsenic (in the form of "rough on rats")	1 (child of 2½ years).
(3) Mercurial poisoning (red sulphide of mercury)	1
(4) Cocaine	1
(5) An irritant poison (unknown nature)	1
(6) Chloroform	1
	13
2. Drowning	3
3. Violence of a mechanical nature	4
4. Strangulation	1
5. Hanging	1
6. Gunshot	1
7. Tramcar	1
8. Induction of abortion	1
TOTAL	25

In the case in which death resulted from the induction of abortion, an "abortion stick" was found in the genital canal. It was $4\frac{1}{2}$ inches in length and cylindrical in form. Its inner end was sharp pointed and at this end was wrapped a piece of thin cloth which had probably been soaked in some medicament. In the attempt to insert this stick into the cavity of the uterus, the point of the appliance had been made to pierce the posterior wall of the cervix, $1\frac{1}{4}$ inch above the os uteri externum, so that the sharp end was found in the pouch of Douglas. Septic peritonitis supervened and came to be the immediate cause of death. The uterus appeared to be about five months pregnant.

TABLE XVII.

Of the 4 cases which were returned by the Coroner and his jury as cases of death due in some manner to rashness and negligence (without criminal intention), the following is the analysis—

Carriage	1
Bullock cart	1
Railway	1
Motor car	1
TOTAL	4

TABLE XVIII.

The following are a few discoveries of interest from the point of view of pathology and morbid anatomy made in the cases that came to the *post-mortem* table:—

I.—Rupture and perforation of the internal organs due to violence alone:—

	Rupture.	Perforation.
Liver	12	0
Liver and spleen	5	0
Spleen	3	0
Stomach	3	1
Intestines	5	0
Kidneys	1	0
Bladder	1	0
Uterus	0	1

II.—Perforation of large blood-vessels due to disease alone, and rupture of heart and large blood-vessels due to violence with or without previous disease:—

	Rupture.	Perforation.
Pericardium	2	0
Right auricle of heart	2	0
Left auricle of heart	2	0
Left ventricle of heart	1	0
Thoracic aorta, 1st part	1	1
Thoracic aorta, 2nd part	0	1
Heart in all its cavities	2	0

III.—Disease of heart and blood-vessels:—

	Endocarditis and Atheroma.		
	Endoarteritis.		
Aortic valve	0	34	
Mitral valve	10	0	
Thoracic aorta	0	34	
Pulmonary artery	0	1	
(b)	Aortic valve.	Mitral valve.	Thoracic aorta, 1st part.
Stenosis	3	1	0
Vegetations	0	2	0
Ulceration	0	0	3
Aneurysm	0	0	3

IV.—Abnormalities:—

(a) In the way of disease, etc:—

	Liver.	Spleen.	Kidneys.	Ovaries.	Uterus.	Fall. tubes.
Abscess	0	0	1	0	0	0
Stone	7 (in gall bladder)	0	1	0	0	0
Cirrhosis	45	0	4	0	0	0
Waxy degeneration	2	0	0	0	0	0
Fatty do.	3	0	0	0	0	0
Infarct	0	2	0	0	0	0
Cyst	1	0	3	12	0	2
Granular contracted Tumour	0	0	2	0	0	0
	0	0	0	0	3	0

The case I would draw special attention to, is that of the stone discovered in the (right) kidney in the body of one *Pahelwan*, a Hindu male, aged 40, who died on the 25th August 1911 as the result of disease of the kidneys and heart. The entire mass as removed from the body was as large as the head of a newborn child. The kidney substance had practically disappeared, and, with-in what looked like the ventricle of a bull's heart, made up of thickened capsule and indurated perinephric fat, lay a single large stone attached to the inside of the containing cavity by means of two cartilaginous-looking pedicles. So little did the organ bear resemblance to a kidney that it was impossible for those who did not see it

removed from the body, to recognise it as a kidney. The entire specimen is perfectly unique and it has, of course, been carefully preserved. The stone weighs 10½ oz. and measures 3¼ inches in its longest diameter. It would be very interesting to learn what figures have been placed on record for the largest stone discovered in the human kidney.

Another discovery, not included in the above table, was made in the case of the *Aku Khan*, aged 30 years, a Mahomedan male, who died on the 3rd November 1911. The ordinary kidneys were replaced by means of a single horse-shoe shaped kidney situated in front of the promontory of the sacrum. The horse-shoe had its concavity upwards and there was a small detached portion of kidney-substance on the inner side of the left cornu. The arrangement of the ureters too was remarkable inasmuch as the cornua and the detached portion were joined above by means of a tube running transversely across, while from each half of the horse-shoe descended a separate ureter in front, the two joining together slightly on one side of the mesial line and passing downwards to open into the bladder near the fundus. This condition of things must be very rare.

In one case, that of a Hindu male of adult age, an accessory or supernumerary spleen was found lying on the inner side of the spleen itself. The main organ weighed 3¼ oz. and the accessory portion only ¾ oz. The latter had all the characters of splenic tissue.

In the 356 cases examined *post-mortem* during the year, only 7 cases were found to contain calculi in the gall-bladder and biliary ducts, making a percentage of 1.9 only. There is a great deal of difference between this figure and those given for Europe by a distinguished German authority as quoted by Professor Moynihan, of Leeds. This quotation has it that "on an average every tenth human being and of elderly women, every fourth, has gall-stones." In my report for 1910 I pointed out that in 283 cases examined, only 4 cases showed gall-stones, making a percentage of 1.4, as compared with 5.9 recorded in Philadelphia. These figures point to cholelithiasis being a much less frequent malady in Bengal than it is in either Europe or America. The question as to the reasons for this difference may be referred to experts in pathology. Has it to do with climatic conditions, dietary, the use of alcohol or with a combination of these?

As a special point concerning *post-mortem* appearances which I wish to draw attention to and which I have not seen noticed in any text-book on the subject, is in reference to cases of opium poisoning. In almost every such case I have observed that the larynx, trachea and large bronchi contain a pink frothy mucus. I have not noticed this appearance so constantly present in cases of poisoning with other substances or in other forms of asphyxial death. The pink frothy mucus is not to be regarded as a result of decomposition, for I have seen it present even where the

post-mortem examination was held within a very short time after death and before putrefaction has had time to set in to any extent.

(b) In regard to weight :—

Liver.—The weight of the adult liver varied between 22 oz. and 115 oz.

Spleen.—The smallest adult spleen discovered weighed 1 oz. and the largest 48 oz.

THE INTRA-CAPSULAR OPERATION FOR CATARACT (SMITH'S METHOD), FROM THE POINT-OF-VIEW OF THE CIVIL SURGEON.

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A GOOD deal has already been written on the subject of extraction of the cataractous lens in its capsule. It is my intention, as far as possible, to avoid any controversial questions and to merely place on record my own opinion of the operation based on actual results obtained.

The extraction of cataracts in their capsules, as performed in India, is an operation of comparatively recent date. The credit for elaborating the technique adopted by most operators in India, is due to Lieutenant-Colonel Henry Smith, as we all know. What knowledge I have of the subject, is derived from his personal teaching. The operation has not as yet been adopted by the majority of ophthalmic surgeons, and any record showing the results obtained by any individual operator must be of some value.

I may say at once that in my opinion the intra-capsular operation is the ideal one in practice, as it must be acknowledged to be in theory. My first experiences were confined to the ordinary capsulotomy operation, and it was not until I had done about four hundred operations by this method, that I first began to remove cataracts by the intra-capsular method. During two winter seasons at Gaya, I did about 1,400 operations by Smith's method. This is a very small number, as compared with the figures of these who have had greater opportunities than myself. But the number is sufficient to entitle me to form an opinion on the subject.

It cannot be too strongly emphasized, that no amount of book reading or verbal instruction will enable the beginner to perform this operation efficiently. Other surgeons have insisted on this point. It is the most difficult operation in surgery for the beginner to perform uniformly well that I know of. It is quite easy to understand why so much opposition has been offered against its adoption. The ordinary ophthalmic surgeon, who does ten or fifteen operations in the year by the capsulotomy method with very fair success, has not the opportunity for learn-

ing the new operation, while many who have greater opportunities lack a teacher. It is not intended to convey the idea that it is necessary to do a vast number of cases and perhaps to ruin a certain number of eyes before proficiency can be attained. What is meant is this—the individual steps of the operation are all difficult and are best done in a particular way if difficulties or disasters are to be avoided. Other operative procedures in surgery have to do with conditions which vary considerably in different individuals, but when extracting a cataractous lens, we have before us certain definite physical and other data which are to a great extent uniform and require definite recognition. For instance, certain mathematical considerations are necessary in making the incision; the iris must be grasped very lightly and never pinched; pressure must be made with the right amount of force, at the right spot, in the right direction and at the right moment, and so on. It naturally follows that in each step of the operation, it is essential to follow a definite procedure to obtain the best results. But in spite of this fact, it is curious to note that a great many operators, who profess to extract cataracts by this method, introduce various modifications of their own, often in the very beginning of their experience.

From the point of view of the Civil Surgeon in India, the extraction of cataracts by the intra-capsular method is undoubtedly the operation of election. The operation is a rapid one—12 to 15 cataracts can be extracted within the hour by the ordinarily skilful operator—and any preparation of the patient which is necessary can be done on the table, immediately before the operation. No tutoring of the patient is necessary; as a general rule, it is best not to speak to him at all. The rapid, clean-cut, radial incision—without any sawing movement—is a great advantage and spares the knife-edge to such an extent, that over 100 sections can be done with the same Graefe's knife, provided it is a good one. The use of a strong antiseptic douche cleans the dirtiest of eyes and suppuration is a very rare event indeed.

In ordinary cases, provided the patient is not unusually nervous and when no complication exists which might introduce some special risk, both eyes are operated on. This procedure is quite justifiable when doing the intra-capsular operation, but few operators would countenance it in the case of extraction after capsulotomy. When one cataract is mature and the other immature, both can be removed at the same time, for it is now well known that by this method immature cataracts can be extracted with even greater facility than mature ones.

This possibility of removing immature cataracts with perfect safety, means an advance in