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CUST 17/71.27

for they are apt to reveal with unconscious faithfulness
the regard held for him by those who knew him best.

9. It was Southey's dictum that "a man's character can more surely
be judged by his letters which his friends addressed to him
than by those he himself penned". And this might be added
to this ^{statement -} particularly of those were letters which the recipient bore
for to preserve". There must be no other excuse for the
inclusion in this story of these ^{several} letters from Father Johnson
which ~~had been~~ ^{were among the few} which Sir William had kept for it was not
his habit to preserve correspondence.

~~Father Johnson thought his wife had left him and he no longer had a
settle he Altho' his wife ^{had} left him it is said that Johnson never
again crossed the door of the Rectory and thought a lonesome old man
he did not live in the Rectory alone is his note by Mrs. Kathleen Fitzgibbon
of Toronto indicates.~~

cases the first perimetric indication of the process when the usual 5 mm. test objects are used is shown by a slant in the boundary of an upper temporal field and a corresponding quadrantal defect in the color peripheries. The advance of this temporal field defect downward with ultimate involvement of the macular area and encroachment on the nasal field was divided, for convenience of clinical designation, into eight stages.* It was shown, moreover, that the recession of the defect

but he also observed in some cases that form of advanced perimetric defect which begins in the upper temporal quadrant.

*We were not the first to call attention to this ^{Characteristic progressive} particular method of progress of visual defects in cases of pituitary lesion. Others also have pointed out this manner of progressive field deformation, among them Dr. Dr. Arnold Josephson. Dr. Josephson was possibly ^{not only} also the first to demonstrate the enlargement of the sella turcica by Roentgenographic methods in a case of acromegaly. Unfortunately there ^{has} been no translation into English of this admirable monograph ^{by us} ~~and~~ (Om Endocrina Skelett-utveckling, rubbningar, Stockholm, 1915) and we are glad to credit him at his request with the priority which he deserves. I think Fisher as we pointed out and also ~~noted~~ noted the condition

after operative measures with relief of pressure took place more or less rapidly and completely in a reverse sequence.

(30)

In another place, one of us (Walker) described some of the more irregular cases in which the defect proceeds from below instead of from above, or from above and below at about the same rate, and recently we

STUDIES OF OPTIC NERVE ATROPHY IN ASSOCIATION

WITH CHIASMAL LESIONS.

by

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I INTRODUCTORY

In a recent communication, ⁽¹⁾ a series of cases were recorded to illustrate what we have come to designate as stages in the development of hemianopsia when produced by the pressure of hypophysial or parhypophysial tumefactions against the chiasm. It was pointed out (1) that in 81 examples of field deformation from ~~these~~ ^{lesion} source they proved to be bitemporal in 26, homonymous in 12, and unclassified in 8, while in 35 there was blindness in one or both eyes, so that it was uncertain in which group, bitemporal or homonymous, they belonged; (2) that in cases of bitemporal hemianopsia it is unusual for the field defect to be bilaterally symmetrical; (3) that in the majority of the

have seen a patient in whom a temporal defect was about equally advanced from above in one eye and from below in the other. Furthermore, in determining the presence of caeco-central scotomata and temporal islands, as well as in plotting the early changes in the peripheral fields, attention was called to the use of a series of test objects increasing in size from that representing the smallest available visual angle (1.5 min.) to the largest satisfactory size (8 degrees). Whether the variation of the field defect represented a variation of visual fiber bundles in the chiasmal region or variations in the symmetry of the tumefaction could not be definitely determined, though the latter cause was favored.

At the conclusion of our last conjoint paper (8) the question of primary and secondary optic atrophy was briefly discussed and surmises were made as to the position of the fascicular fibers in the optic path and the order in which atrophy occurs in them. It was stated that it was often impossible to tell from the appearance of the optic disc whether or not there had been an irrecoverable destruction of the nerve, indeed, vision had been seen to return in blind eyes even when pupillary

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to which he also referred to his private talent,
 His industry was prodigious. ^{He was not} ~~at all~~ content ^{merely} with giving his lectures and ^{the} ~~the~~ ^{supplies} ~~of his~~ ^{new} course and preparing the necessary lectures, a labor arduous enough
 in itself. ~~He must have~~ Having one hospital position and being eager
 for opportunities in the pathological laboratory he volunteered for this
 work and through it was the ^{at the time} ~~custodian~~ ^{visiting} for the Physicians and surgeons
 at the Montreal General to perform their own autopsies they came
 more and more to lean upon him for this purpose and it was
 inevitable that in time the position of pathologist should be
 created for him. He also was familiar with the modern
^{technical} methods of pathological histology and a succession of papers during
 the succeeding years were published under the names of others
 in which the autopsy note was made by him in the typical
 specimens described.

Nor did he fail even in these early days to find others.
 Someone ^{once} ~~has~~ said in after years that it was always a joy to
 find even a good card from Orléans but the drawback was
 that it usually meant a lot of work. The hint to Shepard
 in this next letter to send an open letter to Demerit who was
 editor of the local journal ^{therefore} for a familiar ring.

lesions central to the chiasm. In these longstanding cases, the secondary degeneration in the optic nerves had become well defined and, although the degenerated areas still showed ^{a scattering of} ~~scattered~~ undegenerated fibers, they nevertheless formed a striking contrast with the rest of the nerve. In posterior lesions of this type, one tract is interrupted entirely, while the other is functioning normally.

Hence they tend to give clean-cut defects which are practically the same for small and large discs. ¶ The field defects from chiasmal lesions, on the other hand, when plotted with graded discs indicate that the interruption of the nerve fibers is much more diffuse in distribution, for ^{larger} ~~layer~~ discs give a proportionately wider field.

Thus, from the character of the fields, from the anatomical position of the lesion, and the character of the onset of the hemianopsia, one might expect to find a more diffuse process in anterior than posterior lesions. Indeed, it seems remarkable that a pituitary struma can eventually produce a stage of vertical hemianopsia in each eye with both crossed and uncrossed fasciculi remaining under the same degree of pressure from the start. It was our original view that pressure

and will always remain

Myth Joseph Hyatt was one of the brilliant figures of medical history and though his manual of dissection was a classic which furnished jobs in a class with Victorian feet in their manual it is nevertheless interesting that at this early day to find a later referring others to important books with those which did not happen to be in his special field.

not only read widely, voraciously himself but had already

He first started at this time a Journal Club to purchase & distribute journals which he could afford himself. The Club consisted of Butler, Shepherd, Fenwick, Drake, Howard, Ross, Ross, Cline, MacDannell and Godfrey each of whom clipped up ^{ten} to dollars worth for the purchase of new and former periodicals. The first installment was received April 13 1875 and he kept also getting receipts & distribution and among the "excellent abstracts" which fill the ~~Canadian~~ local medical journal Fenwick and Ross were editors doubtless come from his own pen of unasked members of the club.

He also referred to his days of work, for to find Hyatt's ~~as it is~~ Hyatt's ~~own~~ ~~manuscripts~~ he had to provide for his own resources with the ~~manuscripts~~ the students used and he sometimes would have to go to Palmer Howard to borrow ~~one~~ each to meet his day's expenses. ~~one~~ ^{and} ~~one~~ ^{years later} "I suffered at that time from an acute attack of chronic irpeuritis"

had to go

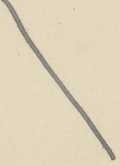
And histology, which ~~constituted~~ ^{constituted} subject ~~of the~~ ^{constituted} 'Institutes of Medicine', as he thought they should be taught - ~~drawn~~ ^{drawn} heavily on his small income. "Students paid fees directly to the instructors who provided equipment and material on a basis on the balance. I did some of the former and less of the latter. The supply of microscopes was meagre and often remedying this defect there were little left in my pockets."

We had hoped that by subjecting this material to accurate histological studies of the degenerated fiber bundles we might be able to supplement Henschen's maps of the course which the fasciculi from the retinal quadrants pursue through nerve, chiasm and tract. We soon found, however, that in many of our cases the atrophy in the optic nerve was either too slight to be well traced or, in more advanced cases, was too diffuse. As a matter of fact, the chiasm and tracts were often so flattened and distorted by the tumor that a sectional survey of the normal anatomical situation of particular bundles which might have undergone excessive degeneration would have been impossible.

We found, too, that it is very difficult, without loss of orientation, to carry sections of the nerves having poorly demarked tracts through the preliminary steps necessary for microscopic study. This is particularly true of the orbital portion of the two optic nerves, which in the process of removal are necessarily detached from the intracranial portion of the pathway including chiasm and tracts. Knowing which was right and which was left nerve, however, it was possible by the aid of the macula to identify the upper and lower, inner and outer

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The twelve manuscripts which he had ordered for his class were made possible,
 as will be seen, from a fee of £600 which he was given for undertaking
 a desirable and, it may be added, a dangerous task. It was however
 an entering wedge to get clinical opportunities which he promptly drew
 hence. In it is evident from this letter



[Faint, mirrored handwriting, likely bleed-through from the reverse side of the page.]

Montreal

Immediately began to make lists and to write for publication - a list he was working at -

Microscope & Histology

" Lectures & pathological specimens. Journals contain my criticisms of their approaches to subjects by
small but read several years.

Pathologist and the McGill Path. Dept. result.

Allowed to McGill Student - began to report to the McGill Ballroom.

~~Started a Foreign Periodical Club reached to Dec.~~

~~Buller stepped Fenwick Drake Howard Ross Cline M^r Donnell~~

~~Godfrey each clipping in ¹⁰ 10⁰⁰ Journals ordered April 13 '75~~

~~He kept trace full their journals & probably note many the abstracts - from
then when full the Can. M. S. journal of the period.~~

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~~It is evident from the above~~ that he was already at least in the small dock
wards and as soon as he went he immediately began to make
profit out of ~~what he was~~ his opportunities wherever they might
be for the purpose of publications.

against the chiasm with resulting distension was the chief element in producing the field defects, but an instrument which has been devised by one of us ^{(Walker),} in which wires ^{could be} ~~were~~ woven in a way similar to the chiasmal arrangement, has led us to believe that tension as well as pressure is an important factor and we may add that Fisher ⁽¹⁵⁾ also reached a similar conclusion.

Material and methods. In a series of some ²⁰⁰ ~~150~~ operations upon patients with hypophysial tumors, there have been ⁽¹⁵⁾ fatalities, most of them occurring in the earlier series at a time when unfortunately we employed less exact methods of perimetry than at present. However, fields were plotted in ^{all} of these cases, except ^{those already} ~~one or two~~ blind, ~~patients~~, on one or more occasions shortly before the operation, so that an opportunity was afforded ~~us~~ to compare the field defects which indicated the degree of functional disturbance with the degree of actual fiber degeneration in the nerves existing at the time. In none of these cases was there any ophthalmoscopic evidence of the secondary changes due to a choked disc, though in some of them a low grade of recent oedema was superimposed on the picture of so-called primary atrophy.

The Montreal General at this time was a modest institution of only about 150 beds, ~~with light and air ventilated,~~ ~~and attached to it in this house granaries was a small poor hospital.~~ ^{overcoffered} The ~~granaries~~ ^{nurses} were of the Sarah Fawcett type and a Dr. Sheford recalls ^{the} were oval stupida to the caps had cheeks, and it was long before modern wards and the modern type of nurse came to supplant the ~~old type~~ ^{order}. Attached to the hospital were

[#] Reminiscences ^{re}

an isolated

granaries was ~~the~~ small fox ward. It was the custom of parents ^{members} for ~~the~~ attending staff to ~~be~~ serve successively in charge of this ward for periods of three months. In this year of 1875 small pox was rife and of a particularly virulent form and evidenced in the case of the ~~same year~~ ^{term} school year. Osler's ^{offer} ~~offer~~ to take the service was accepted, ~~even though he was~~ ^{not} a member of the staff, ^{though at the time he} ~~and~~ was merely a volunteer worker in the dead house, and was

At this period, small pox, ^{or} ~~it~~ maybe recalled, was more a less epidemic everywhere and was particularly severe in most seaport towns. Vaccination was not compulsory, revaccination was rare and quarantine most imperfect. The ~~present~~ local

medical ~~staff~~

James Fox had had a succession of abdominal operations on the hospital's children and the 'M.G.H.' had long made efforts ~~to transfer~~ to induce the city to establish a separate ~~poor~~ hospital for their use and to secure ^{the law} ~~the law~~ ^{revalued} which obligated all hospitals receiving goods from the legislature to receive small pox patients.

The agitation ^{particularly} had been active from 1873

reaction had also been lost. Thus, as has been previously ^{Emphasized} pointed ~~out~~ by one of us (Cushing ⁽⁷⁾), the demonstrable perimetric defects are to be regarded rather as an evidence of physiological block than of an anatomical destruction of the nerves, in view of the great degree of recoverability in the transmission of light impulses on the release of the nerves from pressure. This was further supported by the fact that in several cases the histological examination of nerves showed but a scattered degeneration, even though the ophthalmoscope had previously demonstrated the characteristic pallor of advanced atrophy and the perimeter an advanced field defect.

Since the classical study of Henschen ⁽¹⁸⁾ on the optic pathways ^{practically} did not include examples of chiasmal lesions such as we were given the opportunity to study, we wished to see whether or not the tract degenerations in our cases conformed with those which he had observed. For the interruption in the pathway in Henschen's cases was produced chiefly by cerebral tumors, capsular hemorrhages or other vascular lesions of long duration, varying from one to fifteen years - in other words, by