THE DUBLIN JOURNAL

OF

MEDICAL SCIENCE.

JULY 1, 1885.

PART I.

ORIGINAL COMMUNICATIONS.

ART. I.—*Four Cases of Acute Pneumonia occurring in one Family at the same time.*^a By WALTER G. SMITH, M.D.; Physician to Sir Patrick Dun's Hospital; King's Professor of Materia Medica, School of Physic, Trinity College, Dublin.

FOR some time past pneumonia has been very prevalent in Dublin, and a considerable number of deaths have been occasioned by it, the mortality having been exceptionally high.

From returns kindly furnished by the Registrar-General, I find that the mortality from pneumonia for the first seven weeks of 1885 represents an average of 8·1 deaths per week, against an average of 5·7 per week for the corresponding period in 1884.

In Sir Patrick Dun's Hospital, during the four months November, 1884, to February, 1885, inclusive, my colleague, Dr. Finny, and I met with an unusually large proportion of cases of acute lobar pneumonia, several of which were of a severe type, and the mortality was extremely high.

In this communication I propose to bring forward a group of four cases of acute pneumonia occurring in members of the same family at or about the same time, and in a way which seemed to offer some analogy to the spread of an infective disease:—

CASE I.—On the 29th January, 1885, I was asked to see a young gentleman, aged sixteen. I found him sitting in an arm-chair, breathing rapidly and with distress, with a frequent teasing cough, and the aspect

^a Read before the Medical Section of the Academy of Medicine on Friday, Feb. 27, 1885.

2 *Four Cases of Acute Pneumonia in One Family.*

of being seriously ill. His mother informed me that he had been complaining for two days previously of cough and loss of appetite, and had not slept well, but nothing was thought of beyond a common cold. Early in the morning of the day I first saw him he did not seem worse, but about 11 a.m. he was suddenly struck with a most severe pain in the right side of the chest, which increased in intensity, urging him to bend forwards, and rendering it impossible for him to lie down. At 1 p.m. T. 103·8°, P. 120, R. 60. He was got to bed, and, upon examination, the lower lobe of the right lung was found to be in a state of hepatisation.

CHART OF TEMPERATURE, &c. (Case I.)

Name, E. B. ; Age, 16 ; Disease, Pneumonia ; Result, Death.

During the next two days there was no abatement of the symptoms, the respirations were unchanged, and a fair amount of viscid rusty sputum was expectorated. On the succeeding day, *i.e.*, the sixth day of his illness, it was discovered that the base of the left lung was involved. The urine was albuminous, and he rambled constantly. From that time the pulse never fell below 140, and the respirations seldom, if at all, below 60. He was a lad of powerful build, fond of bicycle exercise, and had been in vigorous health previously. Abundance of nourishment was taken,

with a due amount of stimulants, and he made a brave fight for life; but on the night of the eighth day of the illness his strength began to ebb, the dyspnœa intensified, and, after a scene of noisy delirium and of violent struggles, painful to witness, the end came.

CASE II.—On the sixth day of this lad's illness, *i.e.*, February 1st, I was requested to see his brother, aged thirteen years, who was complaining of a pain in the right side of his chest from the day previous (January 31st). When examined, it was found that he had acute pneumonia of lower lobe of right lung. T. 102·2°–103·2°, P. 120, R. 50. In the course of the next afternoon and succeeding morning his temperature fell to nearly 101°, but a rise set in during the afternoon of the fourth day, coincident with implication of the lower lobe of left lung. The T. rose to 104°, and he looked more seriously ill; yet, singularly enough, the pulse did not exceed 100, nor the respirations 40 in the minute. The pain in the side required the use of morphia hypodermically more than once.

CHART OF TEMPERATURE, &c. (Case II.)

Name, A. B.; Age, 13; Disease, Pneumonia; Result, Recovery.

Day of Month	Feb. 1 1885	2	3	4	5	6	7	8	9	10	11	12	13	14													
Day of Disease	2	3	4	5	6	7	8	9	10	11	12	13	14	15													
TEMPERATURE—FAHRENHEIT'S SCALE.	105°	M.	E.	M.	E.	M.	E.	M.	E.	M.	E.	M.	E.	M.	E.	M.	E.	M.	E.	M.	E.	M.	E.	M.	E.	M.	E.
	104°	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	103°	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	102°	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	101°	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	100°	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	99°	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	98°	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	97°	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	Pulse {	—	120	—	100	88	100	94	90	72	68	80	90	100	80	—											
{	120	—	96	100	96	88	110	100	—	—	—	—	—	—	—												
Resp. {	—	50	—	44	40	44	50	50	36	42	48	40	40	36	—												
{	—	—	—	40	40	44	44	48	—	—	—	—	—	—	—												

and was looking badly; but, as long as she could, she had put off the evil day of seeing the doctor, and refused any attention until she became so ill that she was, perforce, compelled to give up. That evening her temperature was 103°, and she was racked with pains in the chest, side, and hips, necessitating the use of morphia hypodermically. Next morning her pulse was 120, respirations 46, and the base of the left lung was found to be consolidated. The real duration of her case is uncertain, but on the fourth day after I had seen her the temperature fell to normal. Some time, however, elapsed before she could leave her bed, or before convalescence could be said to be established.

CHART OF TEMPERATURE, &c. (Case IV.)

Name, Miss K. B.; Disease, Pneumonia; Result, Recovery.

Lastly, I should mention that another of the boys, aged twelve years, was ailing, on February 13th and 14th, with slight malaise and pyrexia up to 100·2, yet without any local manifestation, and he forthwith recovered.

From a clinical point of view we may note, first, the marked differences which these cases exhibited in their course and manner of onset; and, secondly, the mode of death in Case I. Cardiac failure

is, I think, in many cases, the direction in which danger chiefly lies, and hence the maintenance of the heart's vigour should be uppermost in our plan of treatment; for patients often die from this cause who have abundance of breathing area still in their lungs, and unexpected death is apt to occur in the stage of gray hepatisation when fever has subsided and the patient seems in a fair way to recover. In all the above cases the base of the lungs was attacked. It is commonly taught that the lung inflammation is of a graver type when the upper third of the lung is attacked, but the conclusion deduced from the data collated by the Collective Investigation Committee^a is in conflict with this opinion. As one result of their labours, the Committee report that, in regard to the upper portion of the lung as a seat of pneumonia:—1st. This locality is as favourable for the patient as any other (in its duration and mortality, indeed, it is more favourable than most). 2nd. No tendency is observable on the part of patients of phthisical family to exhibit pneumonia at this seat.

The question of main interest which is suggested by examples of multiple cases of pneumonia is in reference to the ætiology of the pneumonia. It may be asked—Are they instances of epidemic pneumonia, or of infectious pneumonia imported into a house, and spreading from person to person, or are they illustrations of so-called pythogenic pneumonia occasioned by sewer gas, fæcal accumulation, &c., and liable to affect several individuals so exposed?^b

In reference to my own group of cases, I should state that the boy who died was tended, day and night, with extreme solicitude by his mother, and she remained in good health then and since. The sanitary state of the house is not above suspicion. It is old, and in bad repair; rats enter freely from it into the basement of the adjoining house, and I noticed, every time I passed through the hall, a foul heavy smell, to which I called attention.^c There is no water-closet near any of the sleeping apartments.

On the other hand, it ought to be mentioned that the inmates had lived in the house for several years, and had generally enjoyed

^a Report on Pneumonia. Vol. II. July, 1884.

^b Cf. Drs. Grimshaw and J. W. Moore. *Dubl. Journ. Med. Sci.*, May, 1875.

^c Curiously enough, the Collective Investigation Committee remark upon this point that a comparison of the houses and districts where sanitation was reported "good" with those in which it was "indifferent" or "bad" brings out the result that the *lowest* mortality coincided with the *worse* sanitation. The 126 instances exhibiting bad sanitary conditions had a mortality of but 16, or 1 in 8, while the 144 under good sanitary conditions had a mortality of 26, or 1 in 5½ (Report, Vol. II., p. 35).

good health, and they were not, apparently, in a depressed state of health prior to the outbreak of pneumonia. About a year ago I attended one of the younger boys for a mild attack of continued fever, probably enteric fever.

In conclusion, it appears to be borne out by our present state of knowledge that a process of pulmonary inflammation (with enormous exudation) may originate in more ways than one—sometimes, perhaps, as the direct result of injuries (traumatic pneumonia), sometimes as the local expression of a constitutional febrile affection, and sometimes as the result of bacterial infection.

ART. II.—*The House Accommodation of the Artisan and Labouring Classes in Ireland, with Special Reference to Dublin and other Large Towns.* By THOMAS WRIGLEY GRIMSHAW, M.A., M.D.; Diplomate in State Medicine, Trinity College, Dublin; Registrar-General for Ireland; Vice-President of the Statistical and Social Inquiry Society of Ireland; Vice-President of the Dublin Sanitary Association; Consulting Physician to Steevens', Cork-street Fever, and the Dublin Orthopædic, Hospitals.

THE questions connected with the housing of the working-classes are at the present time attracting an unusual amount of attention, not only among sanitarians but also among all other members of the community who take a real interest in the physical and moral welfare of their less wealthy neighbours.

Sanitarians have long held that the house (or, more properly, the dwelling) must be the unit of sanitary work, just as the social reformer looks upon the family as his unit of work, and the moral reformer looks upon the single individual as the unit from which he is to help to build up a moral and religious community. Not only do the sanitary, social, and moral reformers resemble one another in their units of work, but the work of each is so much of an aid to the others that they become of necessity joint workers in the great cause of elevating and ennobling human nature.

It seems almost impossible that the elevated sentiments of morality and religion can exist in the filthy and squalid dwellings which at present constitute the so-called "homes of the poor," and it is not surprising that in many, many instances all sense of decency, morality, and piety has been blunted or has completely disappeared from communities living as large numbers of our fellow-countrymen are known to do at present.