

both diseases. A bronchitis can take place without involving the pulmonary tissue; but in every pneumonia the finer branches of the bronchi will certainly show some co-affection, and even larger ones will become irritated, having to act as excretory ducts for the accumulated secretion.

In *bronchitis* we have no dullness on percussion, except temporarily in case of collapse of a part of a lung from obstruction of a bronchus, sonorous and sibilant rhonchi generally, though not always, on both sides of the chest, varying from time to time in seat, character and loudness, while the copious secretion of mucus, the loud bronchial râles may entirely oversound and finally suppress the hearing of any vesicular murmur.

Only in capillary bronchitis we hear extended, mucous, crepitant, and subcrepitant râles, closely resembling the fine crepitation of pneumonia. In *pneumonia* we find, even during the first stage, moderate dullness on percussion over the affected lobe or lobes of the lung, increasing to decided dullness in the second stage, this dullness remains till resolution occurs.

Inspection also shows that the affected lung or part of the lung fails to take part in the respiratory motion, and where both lungs become infiltrated, the patients breathe only by dilatation of the upper walls of the thorax, whereas the abdomen does not move, as the contraction of the diaphragm is impossible. During the first stage we hear the well-known fine crepitant râles, in consequence of the sticking together of the walls of the air-cells and their separation by inspiration; but as soon as a peripheric part of a lung becomes fully infiltrated, all vesicular breathing is stopped, and we hear in its place bronchial respiration and bronchophony, with increased vocal fremitus. Where resolution takes place, the bronchial respiration gives way to returning fine crepitus, and the dullness of resonance on percussion also gradually disappears.

In bronchitis of the larger bronchi there is a soreness and burning sensation in the upper, anterior chest, with violent cough, but no dyspnoea till the disease reaches the bronchioles, where a small quantity of phlegm may prevent gaseous exchange. In pneumonia the affected part is alone painful, sometimes there is no pain; its characteristics are dyspnoea and chest oppression; the inspirations increase to forty or fifty per minute, short, superficial, labored. In bronchitis dyspnoea is rare, except in severe cases, and the fever never rises to the pneumonic height; chilliness and burning heat alternate. The dry heat of pneumonia occurs after a violent chill,

the face is red, skin turgescens, sometimes bathed in perspiration; there is severe headache with delirium; great malaise; the febrile symptoms continue till resolution.

Cough is neither so frequent nor so continuous in pneumonia as in bronchitis. In the former, patients try to suppress it on account of the pain, even distorting the face during the cough (an important symptom with children in distinguishing pneumonia from bronchitis); in the latter, cough is one of the first symptoms observed and lasts during the whole disease; it is at first short, dry and tight, later deeper and looser with expectoration, at first mucous, in rare cases pseudo-membranous, in severe cases, and at a late stage, purulent, and many a time, especially in affections of the larger bronchi, the mucous râles may be heard without the aid of auscultation. The sputum of pneumonia is characteristic, composed of *mucus, lymph and blood mixed together* (in bronchitis we find only streaks of blood adhering to the mucus), making the rusty, tough, gluey sputum of pneumonia, which adheres to the vessel even when inverted without flowing out. When this sputum increases, loosens and thins, with decrease of fever, the lung fever retrogrades. Sometimes pneumonia runs its whole course with no cough or expectoration (which never happens in bronchitis). Such cases are more dangerous from their tendency to produce adynamia.

These diseases differ in their termination, and during the third stage of pneumonia, œdema pulmonum, abscesses in the lungs, tubercular infiltration, induration or gangrene may lead to fatal results; therefore, bronchitis, in general, allows a far more favorable prognosis than pneumonia.

Capillary bronchitis is always dangerous, its symptoms differ from pneumonia crouposa, it is most severe in infants and old people. As soon as the bronchioles become overloaded with mucus the gaseous interchange is greatly diminished, the blood cannot get rid of its carbon, and dyspnoea and suffocatory paroxysms follow; but the filling up of the bronchioles with mucus and detritus also produces a compression of the pulmonary capillaries, and thus a stagnation in the pulmonary arteries and a retardation in circulation, which shows itself by swelling of the jugular veins, by cyanosis of the cheeks and lips, and more or less by cerebral hyperæmia.

In capillary bronchitis the sound on percussion will be either tympanitic or dull, according as air enters the lungs or not, but the dull sound will be more circumscribed, and with this peculiarity,

that when the patient strongly inspires, or when he empties the bronchioles of their mucus by forced coughing spells, the clear full sound returns where dulness was before. In pneumonia this never takes place so suddenly, and it requires a long time for an infiltrated lobe to return to its normal state. (S. Lilienthal, H. M., Feb., 1873, p. 303.)

Bronchitis and Pneumonia. Differential diagnosis of various forms of bronchitis and pneumonia.

I. INDICATIONS FOR REMEDIES.

1. Location and Direction of Thoracic Pains.

Stitches in the upper part of each lung, better when walking: *Elaps*.

Small pains in upper half of right lung: *Calc. carb.*

Stitches into front of right upper lung: *Arsen.*, *Borax*.

Stitches or dull pains in middle third of right lung: *Sepia*.

Stitches in lower right lung: *Kali carb.*

Stitches in lower left lung: *Pulsat.*, *Phosphor.* (relief in both remedies by lying on same side).

Stitches in upper left lung: *Sulphur* (constant cough, with aphonia).

Stitches in upper left lung, extending through to scapula: *Myrt. com.*

Pain, like cutting cramp, through left chest to scapula: *Natr. mur.*

Severe cutting pains in left mammary gland, extending through to left scapula: *Lil. tig.*

Drawing pain through left chest to scapula: *Rhus rad.*

Cough, with soreness in the upper portion of the left chest: *Apis mell.*

Cough, with stitches from sternum, darting through to between scapulae: *Kali bichr.*

Stitches in sternum and right side of chest through to back, when breathing: *Kali carb.*

Stitches in middle of sternum, extending to back: *Kali hydr.*

Stitches from left scapula through to front of left lung: *Sulphur* (do. reverse).

Stitches from right scapula through to front of right lung: *Mercur.* (*Borax* reverse).

Stitches through to right scapula: *Borax*.

Stitches through to left scapula: *Sulphur*.

Stitches in lower part of left scapula: *Kalmia*.

Pain below left scapula: *Chinin.*, *Chenop.*

Pain under short ribs, in back, left side, posterior aspect of the spleen, extending outwards nearly to left side: *Lobel.*

Pain below right scapula: *Ruta*, *Bryon.*

Pain under right scapula, hindering the motion of the arm: *Chelid.* (see *Senega*).

Pain running from ensiform cartilage, from second rib on right side, diagonally through chest: *Cinnab.*

Stitches in chest relieved by lying on painful side: *Bryon.*

Stitches in chest aggravated by the least motion, and from breathing: *Spigel.*

2. Time of Aggravation of Cough.

Cough worse from 3 to 4 A. M.: *Kali carb.*, *Amm. carb.*

" " " 10 to 12 M.: *Natr. mur.*

" " " 1 to 2 P. M.: *Arsen.*

" " " 3 to 4 P. M.: *Lycop.*

Nux vom.: Cough worse in the evening or towards morning.

Hepar, *Rhus*: Cough worse in the evening, and before midnight.

Cepa, *Calc. carb.*, *Capsic.*: Cough worse towards evening, and during the night.

Euphras.: Cough worse during the day, and especially in the morning.

Chamom., *Laches.*: Cough worse at night, and during sleep.

Apis: Cough worse before midnight, after lying down, and after sleeping.

Arsen., *Hyosc.*, *Merc. sol.*, etc.: Cough worse during the night.

3. Some Notable Cough Characteristics.

When coughing, the head trembles with an inward trembling: *Tart. em.*

When coughing, the head and chest tremble: *Rhus tox.*

When coughing, the whole body trembles: *Bellad.*, *Phosphor.*

When coughing, presses hand on sternum: *Bryon.*

When coughing, thoracic and hypochondriac pains are mitigated by manual pressure: *Droser.*

When coughing at night, has to sit up and hold chest with both hands: *Natr. sulph.*

When coughing, occipital pain: *Ferrum.*

When coughing or sneezing, luminous appearances before the eyes: *Kali chlor.*

When coughing, stitches in hemorrhoidal tumors: *Ignat., Laches.*

When coughing, sensation of frontal constriction: *Iris.*

After every cough, vomiting of ingesta: *Ferrum.*

After coughing, gaping: *Opium.* Coughing and gaping constantly: *Ant. tart.*

Cough with lachrymation: *Eup. perf.*

Cough, with taste of blood in the mouth: *Bellad.* Do. before cough: *Elaps.*

Cough dry and hard, coming in single coughs: *Lil. tig.*

Cough, dry, hard, with great soreness in abdomen: *Nux vom.*

Cough, with pain in larynx and sternum: *China.*

Cough, stitches in larynx: *Bufo.*

Cough, provoked by cold drinks and relieved by warm drinks: *Rhus tox., Silic.*

Cough, relieved by a swallow of cold water: *Caustic.*

Cough, relieved by warm drinks: *Alum.*

Cough, after eating or drinking: *Bryon., Hyosc.*

Cough, from strong odors: *Phosphor.*

Cough, from a change of weather: *Phosphor.*

Cough, on going into cold air: *Phosphor.*

Cough, on coming into a warm place: *Bromium, Bryon., Natrum.*

Cough, in a warm room, better in a cold room: *Cocc. cact.*

Cough, on changing rooms: *Rumex.*

Cough, when becoming warm in bed: *Nux mosch.*

The irritation to cough is felt in the abdomen: *Ant. crud.*

Sensation of a lump in supra-sternal fossa: *Lobel.*

Dry cough, with shortness of breath: *Psorin.*

Dry cough, day and night, in weak and emaciated boys: *Lycop.*

The loose a. m. cough is more fatiguing than the dry evening cough: *Squilla.*

Dry cough, day and night, expectoration copious only in the morning: *Euphorb.*

Dry, hacking cough, worse when lying down at night, after talking and singing; generally uvula elongated: *Hyosc.*

Dry cough, with burning from larynx to scrobiculus: *Magn. sulph.*

Dry cough, from irritation and tickling in the lower part of the larynx: *Cimic.*

Short, dry cough, from tickling in upper part of trachea, aggravated by coughing: *Teucr. m. v.*

Short, dry, hacking cough, from an itching sensation in upper part of trachea: *Nux vom.*

Tickling in the throat-pit causes a dry, scraping cough, worse at night even in sleep, especially with children taking cold in winter: *Chamom.*

Cough, from full inspiration (*Verbascum* lessened by the same); from talking and pressure upon throat-pit; cold air produces a distressing tickling in throat-pit and behind sternum more towards the left: *Rumex.*

Dry, hollow cough, from tickling in chest or throat: *Euphorb.*

Cough, from insupportable tickling in larynx or from tickling at the bifurcation of the trachea, by oppression at the epigastrium, or by accumulation of mucus in the larynx; burning pain in trachea or bronchia. Cough from the least morsel of food or drink. Expectoration ropy: *Kali bichr.*

Cough, at first dry and hacking from tickling in larynx, but finally extending to the lungs: *Sticta.*

Moist cough, from sensation of crawling behind sternum: *Kreos.*

Hysterical cough, from stifling behind upper fourth of sternum: *Platin.*

Expectoration difficult; has to hawk, hem, cough, and spit a good while before he succeeds in getting a little tough phlegm away: *Laches.* (Comp. *Alum.* and *Arum triph.*)

Cough, with partial paralysis of pneumogastric nerve; short, hoarse, weak, nearly suffocating breathing, with whistling noise, thorax expands with great difficulty, head thrown backwards with great anxiety and prostration; face livid and cold; forehead and sometimes whole body covered with cold sweat; pulse feeble and accelerated: *Ant. tart.* NOTE.—A fatal case, that of Mr. A. P., Dr. Hoyt's patient, was probably an illustration of this remedy. (Comp. *Dulcam., Ipec., etc.*)

II. CASES OF BRONCHITIS.

1. *Carb. veg.*²⁰. A lady had a dry cough, with hoarseness, worse towards evening (*Kali bichr.*), and got *Carb. veg.*²⁰. Afterwards she said she never before got cured so quickly of a cough.

2. *Laches.*²⁰. A child had bronchial cough, the paroxysms occurring invariably after sleeping a while. *Laches.* made a good cure.

3. *Rumex*²⁰. A lady had an irritative, hacking cough; cough provoked by pressure upon the throat-pit; sensation of irrita-

tion in trachea and behind upper third of sternum; hoarseness at evening, and a weak feeling in the lower chest. *Rumex*. Cured. (H. V. Miller, H. M., Feb., 1873, p. 309.)

Mrs. S., æt. 53, had been suffering from bronchitis for some days, when her breathing became very bad; palpitation of heart and anasarca set in. *Arsen.*³. Cured. (A. E. Hawkes, H. W., v. 8, p. 139.)

Bronchitis and Aponia. Mrs. A. Dry cough, squeaking râle and aponia; external throat sensitive to touch; soreness, tenderness, sensation of weight in left *ovarian region*; worse after sleep; pale, scanty menses, with loss of sexual instinct. R. *Laches.*²⁰. Cured in a few days. (T. D. Stow, H. M., Feb., 1873, p. 321.)

Whooping Cough. Spasmodic cough of a whistling sound in the latter stages, without expectoration of mucus. *Lauroc.* (W. M. Williamson, Proc. H. M. S., Penna., 1873.)

Whooping cough worse at night, with diarrhœa. *Sanguin.* (W. M. Williamson, Proc. H. M. S., Penna., 1873.)

Whooping cough. Two scrofulous boys. *Bellad.*, *Cuprum*, *Droser.*, without effect. On the fifth day the doctor observed those little ulcers in the mouth as described by Bolle and Goullon. *Thuja*³⁰, three times a day. Well in a week. (Bojanus, H. Gaz., in St. Petersburg; H. Kl., 1873, p. 144.)

Catarrhus Suffocativus. Child, æt. 5 days. Dyspnœa worse in spells caused by cough, motion and drinking. Breathing is wheezing, labored, whistling during inspiration; face purple, bloated; region of the stomach distended; arms twitch, and hands move convulsively. *Kali carb.*²⁰. Spells grow milder in a few hours. On the third day, one dose *Kali carb.*¹⁰. Well. (J. Schelling, A. H. Z., v. 87, p. 26.)

Asthmatic Cough. Paroxysm at 3 A. M., lasting one and a half to two hours, or till the expectoration becomes free; expectoration frothy, tasting badly; sharp stitch in right pneumo-hepatic region; headache, alternate days, left side into left cervical region, commences in the morning with illusion of bright gold chain dangling before eyes, whether eyes are open or shut. Has taken Fowler's solution. *China*. Cured. (L. Whiting, N. E. M. G., Jan., 1872, p. 24.)

Asthma. Paroxysm midnight till day-break; he leaves the bed; has a fear that he will be impelled to destroy his own life, eight successive nights. *Arsen.*^{2m}, one dose. Cured. (L. Whiting, N. E. M. G., Jan., 1872, p. 24.)

Asthma. Occurring in hot damp climate, aggravated after sleep: *Bellad.*; getting up: *Laches.*¹ and 200th. (C. F. Nichols, N. E. M. G., March, 1873, p. 104.)

Asthma. A case of long standing, treated allopathically for a long time without result; appeared to be a neurosis of the nervus vago-accessorius, in consequence of which the bronchi and air-cells became spasmodically contracted. This diagnosis was strengthened by the fact that the patient, a lady, æt. 36, had formerly suffered with attacks of migræna, which had entirely disappeared since the asthmatic difficulties commenced. Amongst the homeopathic remedies which gave the most apparent relief were *Digit.*² and *Cuprum*¹²; but they did not effect a cure. Finally the doctor tried *ozonized water* from Berlin, half a wine glass full every three hours. From that time on improvement commenced rapidly. When later, after walking or exercise, slight symptoms of oppression with tickling cough set in. *Angust.*⁶, in water, two teaspoonfuls every two hours, relieved in a few hours entirely. (Hirsch, H. Kl., 1873, p. 105.)

Hay Asthma. *Arsen.* and *Nux vom.* stand theoretically predominant as palliatives.

Camphor., 1st cent. trit., has been followed for some hours after each dose by decided amelioration.

*Ipec.*²⁰ and *Moschus*²⁰, alternated night and morning, rendered me efficient service in a very nervous young lady.

*Cyclam.*³ and *Laches.*⁶ certainly mitigate wonderfully the annoying sneezing. I have obtained brilliant palliative results with the latter at the 2000th attenuation.

Hydr. ac., *Kali bichr.*, *Silic.* and *Tax. bac.* are recommended. So *Lobel.*, *Ailanth.*, *Euphras.*, *Stict. pulm.* and *Kali. hydr.* In certain cases inhalations of *Iodine* or the insufflation of *Merc. corr.* in the 2d dec. trit., have proved useful.

Since the discovery of vibriones in the secretions, the injections of muriate of quinine, sulphite of soda and carbolic acid have become fashionable. (W. H. Holcombe, U. S. M. and S. J., v. 8, p. 180.)

Sighing Breathing. A young man, otherwise healthy, who had for several months had spells of sighing, deep breathing, the paroxysms consisting of about six deep inhalations, and returning about every five minutes, was cured by *Ant. crud.*^{3x} three doses per day in about one month. (W. W. Tuffts, M. I., v. 10, p. 293.)