Reserches on Pressation-Points and Papule-Points 
and Related Subjects

by
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Nineth Report

From the Angle of Oriental Medicine (Part 2)

By the use of an improved electric stimulator fundamental findings were obtained as follows:—

1) Rapid electric reaction appears on shallow new skin changes, and on deep old ones, retarded reaction.

2) By the difference of their electric reaction, cut wounds of the skin may be divided into three types i.e. first-, second- and third degree cut wound by their depth.

3) Papules of skin are classified into three classes i.e. latent, new visible and old papule. In pathological segment, pigmentation, freckles, lentigo, angiome, leucoderma etc. react rapidly to the electric stimulator, and when inflammation or hypersensitivity resulting from viscero-cutaneous reflex eaves the skin, the electric reaction of these skin changes itself vanishes, several minor daughter foci remain in the regions surrounding these skin changes for some time, and ultimately all electric reactions vanish.

4) Each of the first-, second- and third- degree burns caused by moxibustion shows a different electric reaction. Moxa-burns of a same degree react to the electric stimulator identically whether they are located on moxa-points specially known to be electrically sensitive or on common electrically nonreactive points. But a moxa-papule has a very interesting influence on a neighbouring papule. For example, a visible papule on the moxa-point "Kyokutaku" which has been growing late-reacting is made to react rapidly by moxibustion of the neighbouring electrically rapid-reacting moxa-point or latent papule (Shakutaku). This occurs 3 hours after the moxibustion, and in 4 hours more the moxa-papule on Shakutaku becomes highly rapid-reacting, and the papule on Kykutaku becomes slower in electric reaction and weaker in erythema than it was before the moxibustion. These functional and visible changes of a papule caused by a neighbouring moxa-papule have important implication about the therapeutic meaning of the moxibustion (Personal experience).

5) By reaction to the electric stimulator and existence of papules was confirmed statistically the location of some moxa-points (Keiketsu) associated with lung- and heart- diseases. Interesting skin changes after artificial pneumothorax were probed by the electric stimulator. Moreover he found serial papules in the median line on the ventral side which coincide with the "Ninmyaku" (a sort of Keiraku).
Researches on Paravertebral Papule-Points and Pressation-Points and Related Subjects

by

Rokuro Fujita
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I. A New Painful-Point under Pressure in Myocarditis.
(Naika-Shonika-Shi Vol. 3: No. 19: Sept. 1943)

After 7 years' (1936—1943) clinical experiences, the experimenter found this fact that there exists in myocarditis in a broad sense the same painful-point under pressure as Boas' and Erwald's one in cases of gastric and duodenal ulcer. There exists fingertip-sized induration of muscle or P. P. P. (Painful-point under pressure) on the back at the height of mostly 3rd occasionally 4th or 5th thoracic interpinous space.

II. Research on Painful-Point under Pressure at the Lateral Edges of Vertebral Body on the Back.

First Report
(The Nippon Journal of Angio-Cardiology Vol. 12: No. 7 & 8: Sept. & Nov. 1948)

He found the same P. P. P. at the lateral edges of vertebral body at the height of 2nd thoracic interspinous space, which was thought to be accompanied with the pathological changes of bronchi and lung.

Second Report
The Nippon J. of Angio-Cardiology (Vol. 13: No. 1: April 1949)

The experimenter knew that in the diseases of liver the same P. P. P. could be proved at the height of 5th, 6th and 7th thoracic interspinous space.

Third Report
a. (Abstract of the Paper Presented at the 13th Annual Meeting of the Nippon J. of Angio-Cardiology March 30 and 31, 1949)

1) Having examined patients out and in (271 cases) of P. P. P. on the lateral edges of general vertebral body during 1947—1948, the experimenter has obtained the following result.
Table

<table>
<thead>
<tr>
<th>Section of Vertebra</th>
<th>Position of P. P. P.</th>
<th>Sort of Organ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thoracic Interspinous Space</td>
<td>1(2)3 (3)4 5 5(6)7 R. 7(8) L. 7(8) (9)1011 7 8 9 1011(12)</td>
<td>Bronch, Lung Heart Liver Gall-Bladder Spleen Kidney Stomach, Doudenum</td>
</tr>
<tr>
<td>Lumbar Interspinous Space</td>
<td>? 123 ? R.3(4)5 L.3(4)5</td>
<td>Pancreas Small Intestine Coecum, Appendix Sigmoid Colon, Colon</td>
</tr>
</tbody>
</table>

Remarks: ( ) Maximum Painful Point.

2) The Position of the pressure examination is generally situated on the both sides at 2.0—3.0 cm. from the median line on the back. But the P. P. P. in appendicitis, sigmoid colon and colon could be found more easily 5.0—7.0 cm. from the medium at Jacoby's line.

This P. P. P. in appendicitis could be proved even in non-adhesive initial cases.

3) In a few cases he found serial eruptions of papule, sometimes erythema, moreover often in highcoloured rosy ring or pustule at the top, in a regular line on both sides at 2.5—3.5 cm. from the median line on the back, and when the papules erupt, his P. P. P. would be restricted or disappear, so the experimenter estimates the latter is to be allergic changes of muscle as well as the former is that of skin.

b. (The Nippon J. of Angio-Cardiology Vol. 14: No. 1: April 1950)

1) These papules were analogous in form and position with moxa-papules, and thus he reached a presumption that these papules would be ever the prime motive of discovery to maxa-points in China.

2) The sites of papule coincide with such organic changes of skin as mole or lentigo, pit, scar, pigmentation, leucoderma, etc. and therefore he decided to call these maximal reactive points of skin "Papule-Points" naming after the eruption which was the first step of this discovery.
3) At any rate those papules may indicate the immunological and allergical meaning of moxa-papules besides pharmacological, thermical and pathomorphological meaning of it on the one hand and research on the position of the papules may be developed to the study of autonomic, especially vasomotoric nervous system in concert with the problem of inflammation, allergy and pain on the another. (Nov. 3, 1949)

II. Research on Paravertebral Papule-Points and Pressation-Points (Painful-Points under Pressure), and Related Subjects

Fourth Report

Clinical Observation on Papules.
(The Nippon J. of Angio-Cardiology Vol. 15: No. 7 & 8: Nov. 1951)

1) The papules provides objective evidence of existence of the writer's pressation-points as herpes zoster does for the hypersensitive zone described by Dr. Head. The former indicates the segmental changes of viscero-sensory reflex just as the latter does, but unlike herpes zoster they sometimes appear symmetrically on the right and left side, and occasioned they show regular vertical arrangement in lines parallel to the median line. Thus as a result of the study of papules and papule-points the writer would definitely propose "three-dimentional Observation of Human Body" (not only ventro-dorally and laterally but also cranio-caudally).

2) Six lines on the back—the median line, and the lines about 2.5 cm., 5.0 cm., 10 cm., 15 cm., and 20 cm. from it—are determined and also similar sagittal lines are observed on the ventral side. It is interesting to note that these lines coincide almost always with the "Keiraku" (a sort of pathway connecting several moxa-points serially) which was reinvestigated by Y. Nagahama and M. Maruyama. At any rate, comparison of these lines with the orientation lines on surface of the body, may serve as a clue for explaining the complicated "Keiraku".

3) The papule-points are the points appropriate for treatment with electrical mechanism, moxibustion, acupuncture and others. (Nov. 3, 1950.)

Fifth Report

Pressation-Points on the Back in Appendicitis.

1) Pressation-Points on the Back in Appendicitis.

a) Pressation-points at paravertebral line (at the first line on the
back) are found 2.0–3.0 cm. to the right of the median at the height of 2nd, 3rd and 4th lumbar interspinous spaces.

b) A pressation-point inside of scapular line (at the second line on the back) is found at 5.0–7.0 cm. to the right of the median at Jacoby's line coinciding with trigonum lumbale.

c) A pressation-point at posterio-axillary line (at the third line on the back) is found 10.0–12.0 cm. to the right of the median at Jacoby's line (pres- sation-point in colitis).

2) Papule-Points in Appendicitis (Pictures were exhibited). The pressation-points in appendicitis mentioned above as well as those well-known ones appearing on the ventral surface coincide with papule-points.

3) The Matters Related to the Main Subject.

a) A New Pressation-Point at the Second Line on the Back in Myocarditis.

The experimenter discovered that pain under pressure or a thumb-ball-sized induration appear in myocarditis at the height of the 4th and 5th thoracic interspinous space inside of scapular margin, 5.0–7.0 cm. from the median, mostly on the left side.

b) No pressation-point can be confirmed without the corroboration of papule-points; in other words, the papule-point offers a criterion for judging the correctness of known and unknown pressation-points.

c) The above-mentioned views for the relationship between pressation and papule-point may be applied to heart, gall-bladder and other viscera. (April 3, 1951)

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Sixth Report

From the Angle of Oriental Medicine (Part 1)
(The J. of Japan Oriental Med. Society
Vol. 2: No. 1: Oct. 1951)

1) Papules and Moxa-Papules.

a) Moxa-Papules Offer Facility of Observation of Living Bodies.

b) Moxa-Points should Fall on Papule-Points.

As papule-points coincide with moxa-points (pictures were exhibited), the papule-points offer a criterion for judging the correctness of known and unknown moxa-points.

c) If one applies the electric stimulator on a papule, the patient complains of severe pain, and therefore the electric stimulator is most appropriate for research on papule-point accordingly moxa-point.
2) **Moxa-Points Coincide with Head's zone According to the Observation of Papule-Points.**

As M. Goto, K. Komai and S. Aochi described 40 years ago, there is certainly some connection between the moxa-points and Head's zone, nevertheless they have not been found to coincide completely either practically or theoretically. They are two different views of one natural phenomenon (papules and papule-points) from the standpoints of Oriental and Occidental medicine. The former laid stress upon the cranio-caudal changes of the papule-points (Keiraku), and the latter upon transversal ones (Head's Zone), and the factor of time was not explained thoroughly in either.

The first part of the last sentence is described by Y. Manaka coincidentally.

3) **The Factor of Time Is Important to the Observation of Papules and Pressation-Points.**

In subacute septic diseases (e. g. rheumatism) as well as in acute ones (e. g. typhoid fever, small pox, etc.) the first allergical change of skin is erythema, then in the advanced stage of the disease appear erythematous macules accompanied with corresponding pain under pressure, and at last in the period of convalescence papular eruptions without corresponding pain under pressure. Moreover the slight organic changes such as pigmentation, leucoderma, pit, scar etc. (which sometimes remain at the same position after papules have been vanished) as well as lentigo and angioma, indicate a previous disorder either known or unperceived or locus minoris resistentiae of the patient. (Apr 15, 1951)

**Conclusion**

Recently Prof. T. Ishikawa suggested that papules studied by the writer originate from GL. Cutaneous (which performs both sensory and motoric functions and is the site of allergic sensitiveness.

In other words, he believes on pathomorphological grounds that they develop from neuro-angio-epithelial element.

At any rate, the papule-points have a close connection with blood-vessel and its nerve, and their study is thought "to throw a light on the clinical application of Prof. T. Ishikawa's "Theory of Chemo-Receptoric Mechanism."
Seventh Report

Pressation-Points in Myocarditis

(Abstract of the Paper Presented at the
16th Annual Meeting of the Nippon J.
of Angio-Cardiology March 31, 1952)

1) Pressation-Points in Myocarditis in a Broad Sense.

a) Pressation-points at paravertebral line and inside of scapular line are found same as previous reports.

b) Pressation-point at the third line on the back is found 10.0—12.0 cm. mainly to the left of median at the height of 4th spinous process.

c) Pressation-points at the median on the ventral side are found at the height of 3rd 4th and 5th intercostal space.

2) Papule-Points in Myocarditis.

a) The pressation-points in myocarditis mentioned above coincide with papule-points.

b) The pressation-points and papule-points in myocarditis are situated on 3rd 4th and 5th thoracic segment of Head's dermatom.

3) The matters Related to the Main Subject.

In general, when one applies an electric stimulator to a papule the patient complains of severe pain. Pain results when pressure is applied to a papule of the skin located directly over a bone (not over a muscle). In pathological condition, angiomata and lentigo appearing on such papule-points located over a bone have been proved also to give pain under pressure. Moreover the experimenter noticed bleeding from the bottom of lentigos on diseased segments.

These investigations proved the existence of humoral, accordingly chemical changes in the area of hypersensitivity of the skin, and it is therefore considered that the allergical changes, regarded by him as the chief causative-factor of viscerosomatic reflex, are not limited to the "irritable focus" of Mackenzie, but spread out over all pathways of viscero-cutaneous reflex and extend to the "irritable segment." From the above-mentioned observation and interpretation, the experimenter proposes a hypothesis that denies the existence of so-called viscero-sensory reflex, in other words he believes there exists no other viscero-cutaneous reflex than the viscero-motoric one (e.g. sudomotor- pilomotor- and vasomotor-reflex). The visible humoral changes of the skin i.e. erythema of papules, resulting from the vasomotor-reflex (centrifugally), might in turn (centripetally) produce the painful points under pressure and the hyperalgesia of skin described by Dr. Head, stimulating the sensory endings of the somatic nerves which, he thinks, do not belong to the circuit of the reflex, but play a rôle of perceiving subjectively (in-
directly) the reflex phenomena.

Similar explanation of the mechanism of sympathetic reflex phenomena associated with referred pain have been given by Wernoe (1920—1925), Davis and Pollock (1932—1936), but their observation was made while the blood vessels were constricted and therefore the adjacent tissue was in a state of ischemia, whereas the present experimenter's observation was made while the vessels were dilated and the tissue in a state of hyperemia. (Nov. 11, 1951)

Eighth Report

Mechanism of Segmental Viscero-cutaneous Connection

(A personal Experience in Appendicitis).


The experimenter, who had had three previous attacks of appendicitis had general urticaria in March and April 1951, and when the acute symptom had subsided, he experienced the fourth onset of appendicitis.

On November 19, 1951, he was accidentally bitten on the ventral side of the left thumb by a tuberculous guinea pig, which had been allergized by Lewandowsky's method. Although 0.15 gr. neosalvarsan was injected immediately after the accident, the interesting phenomena described below were observed (perhaps metallaergy of Urbach).

1) After two days, general urticaria reappeared (vascular generalization of allergical changes).

2) One day later, diffuse erythematous itching macesules were observed extending from inside of superior extremity to axillary and shoulder on the left side (lymphatic or localized allergical changes).

3) On the eighth day he felt the pain characteristic to appendicitis and noticed simultaneously an erythematous maceule on Mac. Burney's point which both lasted for four days (generalized allergical changes fixed themselves on both visceral and somatic chemorecepteric points of congenital and postnatal least resistant segment of the body).

The whole allergical changes disappeared completely by the seventeenth day.

In clinical practice both localized segmental viscero-somatic reflex and segmental viscero-somatic connection or subdivisional phenomena resulting from generalized humoral changes, recur in a vicious circle. At any rate the above-mentioned three allergical phases are very interesting and full of implications; it is especially interesting that similiar phenomena are often found when moxibustion is given on any part of the human body.
Nineth Report

From the Angle of Oriental Medicine (Part 2)

(Abstract of the Paper Represented at the
2nd Annual Meeting of the Japan Oriental
Med. Society April 2, 1952)

By the use of an improved electric stimulator fundamental findings were obtained as follows:—

1) Rapid electric reaction appears on shallow new skin changes, and on deep old ones, retarded reaction.

2) By the difference of their electric reaction, cut wounds of the skin may be divided into three types i.e. first-, second- and third-degree cut wound by their depth.

3) Papules of skin are classified into three classes i.e. latent, new visible and old visible papule. In pathological segment, pigmentation, freckles, lentigo, angioma, leucoderma, etc. react rapidly to the electric stimulator, and when inflammation or hypersensitivity resulting from viscerocutaneous reflex leaves the skin, the electric reaction of these skin changes itself vanishes, several minor daughter foci remain in the regions surrounding these skin changes for some time, and ultimately all electric reactions vanish.

4) Each of the first-, second- and third-degree burns caused by moxibustion, shows a different electric reaction. Moxa-burns of a same degree react to the electric stimulator identically whether they are located on moxa-points specially known to be electrically sensitive or on common electrically nonreactive points. But a moxa-papule has a very interesting influence on a neighbouring papule. For example, a visible papule on the moxa-point "Kyokutaku" which has been growing late-reacting is made to react rapidly by moxibustion of the neighbouring electrically rapid-reacting moxa-point or latent papule (Shakutaku). This occurs 3 hours after the moxibustion, and in 4 hours more the moxa-papule on Shakutaku becomes highly rapid-reacting, and the papule on Kyokutaku becomes slower in electric reaction and weaker in erythema than it was before the moxibustion. These functional and visible changes of a papule caused by a neighbouring moxa-papule have important implication about the therapeutic meaning of the moxibustion (Personal experience).

5) By reaction to the electric stimulator and existence of papules was confirmed statistically the location of some moxa-points (Keiketsu) associated with lung- and heart-diseases. Interesting skin changes after artificial pneumothorax were probed by the electric stimualtor. Moreover he found serial papules in the median line on the ventral side which coincide with the "Ninmyaku" (a sort of Keiraku).
Recently the experimenter gave one point of moxibustion on the skin at the original moxa-point (Gen) of any Keiraku in each of seven healthy cases chosen at random, producing a second-degree burn. In six of them he found rows of points which reacted electrically rapidly. The row is analogous to the corresponding Keiraku on each Gen. By the same method, but without applying the electric stimulator a row of papules appeared in line along the Keiraku after 7—14 days. Besides supplying interesting new findings about sympathetic reflexes and allergical changes, these researches, may be said to have given a clue for proving the general existence of Keiraku. And they are not in conflict with Head's dermatom and above-mentioned interpretations of this study (June 1, 1952)