

ENDOCRINE MALDEVELOPMENT IN SCHIZOPHRENIA

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This study is based upon over 16 years work in several State Mental Hospitals and over 5000 gynecological examinations on new admissions, re-admissions and other mental hospital patients as well as on hundreds of gynecological and physical examinations on so-called "normals" during several years of University service and also of general practice.

The symptoms of endocrine mal- and underdevelopment in schizophrenia are large in number, of great variety and more or less pronounced. To a keen observer they are visible at first sight and no tape measure, etc. is needed. These symptoms should be classified into 1) General and 2) Sex organs: primary and secondary sex characters.

The bisexuality in body build is more or less definite, a physical bisexuality that must result in psychic bisexuality: "males" with female characteristics and "females" with male characteristics. "Males" with a feminine panniculus, small hands and feet, soft, "angel-face" features, small, not well developed penis and even with mammae.

In the female schizophrenic one can easily differentiate 3 types: 1) the over-slender, "streamlined" type with too tapering hands and feet that are usually cold, clammy, cyanotic. Arms and legs are without muscular structure, "snake-like" or "stick-like", the thenar and hypothenar appear atrophic. This is the hyposthenic or asthenic chest type that often develops pulmonary tuberculosis. The posture is poor: chest drawn in, the infantile shaped abdomen protruding. The "streamlined" type is most characteristic and usually found in the catatonic subgroup. 2) The obese tendency type is short necked and often of high shoulders. As the disease progresses the head becomes drawn in between the higher going shoulders as the posture becomes that of regression. Usually but not always the skin is cold and clammy, rarely cyanotic, and the fatty tissue has a different "feel" than in other overweight individuals. It is "pasty", "putty-like". Hands and feet are shorter and of peculiar shape, in some the fingers are too pointed and the nail bed is too narrow, too short or too long, briefly "not well shaped". 3) The masculine, grossboned type is "husky", too robust for a female, with oversized, bony hands and feet, masculine features, coarse voice. Many of this over-robust, masculine type belong in the "bossy" paranoid sub-group.

Outside of these general characteristics there are numerous developmental "flaws". The writer, a physician-artist, has not encountered one perfect physique in that overwhelmingly large patient material.

Here are named only some of the many bodily defects that are not acquired: head malshaped or out of proportion, too small or too large, receding forehead, receding chin, prognathia, offstanding, malshaped ears, some nearly twice normal size in females and undersized in males, poorly developed convolutions, "bat like" consisting of a membrane instead of cartilage, "widows peak", malformed teeth or with opacities, supernumerary teeth, irregular position of teeth (frequent), shape too narrow and too long or too broad and too short in females resembling horse teeth, lack of differentiation between incisors, canine. Neck too short (bull like) or too long with too small a head (dinosaur like), shoulders wider than hips and too high, not slanting (in women) or too much slanting with too narrow and elongated a thorax. Angular instead of soft body outlines in women but soft outlines in the male. Infantile abdomen (frequently prominent), lack of inguinal triangle on surface anatomy. Frequency of moles, warts. Skin is dry, easy wrinkled, lacks elastic fibers, aging prematurely and usually "tough" to needle prick. Poor and peculiar development of subcutaneous veins that are too small, too ramified and appear poorly filled (difficulties with intravenous applications!) Tongue is dry, often narrow, and long, too slender and the papillae are not well developed. Anemia, underweight.

Speckled irides (rather frequent in the older age group) or not of the same color in both eyes, three cases of congenital blindness due to underdevelopment of eye (no pupillae but cyst like stage), clubfeet, supernumerary fingers or toes, webbing, toes out of line or 5th toe placed much higher than the others, peculiar toe line either too slanted or too blunt, maldevelopment of toes and nails. "Birds claw" nails, too long, too narrow, curved downward and even with a groove on the undersurface. Certain body parts out of proportion as compared with others or with the entire body.

Hirsutism. Masculine hair distribution in the female and near hairlessness in the male. All type of beards in females even reaching in the neck and already in youth. Hairy thighs, or entire legs hairy, hairy linea alba, hairy areolae mammae, crines pubis long and straight or scantily developed. In some catatonics a pronounced "fuss" of lanugo hair over neck, shoulders, back was found. Arms also too hairy like legs and together with muscular underdevelopment.

In regard to maldevelopment of primary sex characters, cystic ovaries are not rare nor is an undersized uterus, a filiforme cervix, or too thick and too short a cervix, a short vagina, small vulva, small and dry labia, diminished sex secretions, lack of sex odor, atresia of hymen. Oversized labia were found in one case only. In some cases hymen too fibrous, too "tough". Mons pubis flat so that it can hardly be called "Mons". In some cases the pubic arc was reaching too far downward forming a bony resistance at introitus vaginae. Rather frequent was "Hottentotten

apron", the smaller labia larger than the large ones and definitely protruding, beginning formation of penis in one.

The mammae show always underdevelopment of all degrees and varied malformations. Mammae small, in some complete lack of parenchyma with only a large, hard, non-erectile nipple present. Nipples rarely respond with erectility upon touch. Inverted, polypous, mulberry nipples are not rare. Mammae are not well shaped, some had shape of tits in animals. Mammae are usually flabby even in the very young and without childbirth.

In schizophrenia there is a more or less pronounced general hypotonia or a-tonia (flabbiness) of the skin, panniculus, muscles (striate and smooth), mammae, testicles. There is also a premature tissue aging. The constitutional "spark" being poor it burns out sooner than in the healthy.

Menses are usually scant with "overtime", irregular only one to 3 days, "hardly to stain a napkin", the reproductive period being shorter than in the healthy, menses often starting after the 13th or 14th year even as late as at 19 and climax as early as 36 and even earlier whereas in some healthy females the reproductive period reaches from 9 to 59 (in the Latin South). Just before the start and during menses the mental symptoms show often an exacerbation.

The mammae do not join in the menstrual cycle as in the healthy well developed female. Even in cases where they seem to be of average size it is not parenchyma but only substitution tissue, fibrous or fatty tissue. The mammae do not become slightly larger, fuller and somewhat more sensitive with superficial veins more prominent before the onset of menses but there seems to be no connection between their hormonal activity and the ovarian-uterine function. Breast feeding is usually impossible due to lack of or too scant milk supply or "something" in the milk that does not agree with the infant (probably some dyshormonal substance), and that has not been found yet in a chemical laboratory as such "schizoid" milk may contain all "necessary" ingredients. It is nothing rare in the South that well developed females nurse their offspring for 2 years without additional feedings and on their average frugal food (in the vain hope to prevent conception during lactation). The hypophysis may play a role in regard to mammary-ovarian-uterine-adrenal function.

Briefly summarized the schizophrenic female is less well equipped physically as a female than a healthy one. She is less to non-"voluptuous" (sometimes an everyday term makes for a good description) and the schizophrenic male is neither physically fully equipped as a male therefore their psychic sex characters cannot be up to par either and re "love life" they are bound to encounter many difficulties.

The physical "flaws" cannot be classified under any physical clinical

picture but they do exist and are congenital, not acquired. Their etiology is faulty or hypodevelopment.

In manic-depressive psychosis (rare in State institutions!) and in the neuroses developmental defects are not found or extremely seldom.

CONCLUSIONS

(1) There is a definite correlation between physical and mental development. Psychic bisexuality corresponds with physical bisexual traits, with masculine body traits in the female and feminine body traits in the male.

(2) Emphasis to be placed upon the body-mind unity.

(3) The schizophrenic group with its frequent bodily "stigmata" presents a much more deep seated mental disorder than the manic-depressive and neurotic group where "stigmata" are usually absent. But in the amentias congenital "stigmata" are not rare.

(4) Atavism as to body build, reverting to the appearance of certain animals as ape, cat, hawk, dog, goat, etc., is not rare and was well observed already decades ago by certain caricaturists.

(5) The ontogenetic-phylogenetic angle is pronounced in schizophrenia and in the schizoid personality and also in amentias whereas it is usually absent in the neuroses and the manic-depressive psychosis.

(6) Observation shows that the stock in the schizophrenic group is more obviously and more deeply "tainted" than the stock in the neuroses and manic-depressive psychosis where usually a well developed body build is found. (In regard to "heredity" the psychiatrist has to rely more upon his own observation and experience than upon the case history by patients' relatives who consciously or unconsciously deny facts.)

(7) On the whole schizophrenics are derived from a more or less debilitated stock not only in regard to schizophrenia and other mental diseases but severe "somatic" diseases as diabetes, heart disease, gall-bladder disturbances, cancer, tuberculosis, syphilis are more frequent in the schizophrenic stock than in others. It is of interest that amentias and schizophrenia are found in the offspring of chronic alcoholics what would prove the alcoholic traumatization to the germ plasm (that was confirmed in the animal experiment on litters of white mice).

(8) The more or less striking signs of physical (endocrine) underdevelopment in the schizophrenic group correspond with the emotional immaturity—all features of poor equipment to meet reality properly what necessarily results in progressive withdrawal and the other symptom-complex in schizophrenia.

(9) An early differentiation between the prognostically much more unfavorable and clinically much more frequent schizophrenia from the manic-depressive psychosis calls for thorough university training and experience but also for a keen observation of the examiner as too often

the catatonic type is diagnosed as manic-depressive psychosis, etc. and an early schizophrenia with the predominant somatic delusions is mistaken for a "psychoneurosis" one with paranoid ideas as "paranoid state", etc. because the schizophrenias may start as most any other mental disease until the typical picture becomes established. Study of the body build would facilitate early differential diagnosis.

(10) Re: therapeutics the great importance of Eugenics cannot be overemphasized. In animals we breed the best, in humans—woe!

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