

EUROPEAN CONGRESS OF TWINS ¹

of
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On the 21st and 22nd of May 1955 a congress of twins took place in Oirschot (Nederland). The initiative for this remarkable assembly came from the secretary of the local Sportsclub Orion, Mr. Louwers, who himself is a half of a twin. In order to add glamour to the anniversary of this club it was thought to achieve this by inviting twins. This gathering was a great success for over 300 twins from different countries took possession for several days of this quiet town in Brabant. The original intention was to offer a programme of social activities including excursions, musical evenings, competitions and dancing. The international Press had given a great deal of publicity to this Congress whiel from a cultural point of view was successful.

The total number of twins which took part was 327 (654 persons). The countries which were represented were as follows:

Holland, 229, Germany 61, Belgium 21, Saarland 4, Austria 4, France 2, Sweden 2, Switzerland 2, Finland 1, Italy 1. The average age of the participants was 29.1 years, the oldest being 82 and the youngest 15. Total number were 167 girls and 155 boys. The number of mixed twins was small (38) so that there as a rather strong tendency towards twins of the same sex. Similarly there was also a tendency for identical twins but this was not certain because not all the twins of the same sex could be actually identified by anthropological methods. After examination it was almost certain that 80 were one-egg twins but most probably there were more. This has strenghtened our opinion that also in the public eye only those twins are considered genuine which are physically and mentally the same. Since 375 twins had unselectively taken part, in the congress, it would have been expected that at least a 100 would have been mixed twins, in fact there were only 38.

At first it was not thought, that such a congress would also have some significance in the field of Medical Science and Public Health. Various doctors had joined the organizing Committee in order to survey the possibilites of carrying out anthropogenetic tests. a. o. Dankmeyer (Leiden), Curtius (Lubeck) Siemens, Verstege, Bakker, Schulte (Maastrich), van den Bosch (Leiden), Tisserand-Perrier (Paris), Bruins (Deventer). A small working committee was formed, which was joined by the Rotterdam detective Mr. Schoemaker who was responsible for the dactolysing of the twins. The difficulty was that these were no possibilities of carrying out thorunugh examinations, owing to the fact that the programme was fully covered with social activities and competitions. Two points had been listed, drawing attention to the medical background of the congress. - 1. a speech by three doctors,

¹ Translated by Mrs S. Friedler-Zendijk.

2. the possibility of forming a club for twins. The latter suggestion was received with great enthusiasm. It must be said that the organisers of the congress did the utmost to draw attention to the scientific background of this congress, and it is remarkable that the twins themselves showed great interest in the inheritance tests. Even during the eve-



Concordant acrocephali identical twins

ning performances groups of twins came for identification and various other tests. The most important facts arising out of this was that future contacts could be established, and a club for twins could still improve this connection.

The procedure of these provisional examinations was as follows: At the Registration Office two students were present who were able to identify one-egg twins "a vue" and they were given free-passes to the medical department. This medical department consisted of two tents: in the first tent an effort was made to carry out a closer more objectively founded identification on the basis of a simple method, which had been used in the clinic of prof. Siemens. This method stated: shape of head, colour of hair, shape of hair, partings of hair lanugo (face, neck and arms), shape of ears, colour of eyes, refraction, epheliden, texture of skin (teleangiectasieen on cheeks), acne, tongue groves, teeth, shape of hands and nails. These results were given a plus sign in cases of similarity and

a minus sign in dissimilar cases. Moreover special attention was given to peculiarities such as, endocrinological and pathological habits, birth marks, agiomen etc. and to right-handed and left-handedness. The results of one-egg examination was one egg, doubtful, or two-egg. It was fortunate that the organisers of the congress had formulated a questionnaire containing administrative details to which were added questions about sport, hobbies and music. The various competitions, oldest twins, most musical twins, furthest residing twins, most dissimilar and most sympathetic twins, provided no basis for scientific conclusions.

In the second tent at the first stop fingerprints were taken at the second stop photographs were made, and at the third stop an eye specialist measured the distances of the pupils. Prof. Curtius and his two assistants were specially interested in the female twins above 15 years of age and directed his examinations especially to the peripheral blood-vessel anomalies (temperature of the skin, spasms, nervous regulation of the vessels of the skin etc. The results of this work are not known yet. Ten finger prints were taken of each of 80 identical twins. Amongst these specimens was one with a concordant harelip, one with a concordant acrocephaly (in this case only one twin was present but just the missing twin was well known to the author). Curtius also discovered a casuistic peculiarity, the one half of an identical twin had warm hands, the other had cold. Upon further investigation it was found that this was not accidental, for the girl with the cold hands had some years ago gone through a serious commotio cerebri which left her with cold hands and other symptoms. Before this happened she also had warm hands like her sister, a nervous influence of the vasoconstrictors.

It just happens that these other halves form the ideal material for comparison in cases of concordancy and disconcordancy. Moreover these two-egged twins are indispensable to compare and establish the frequency figures of concordancy and disconcordancy. They only have in common with the one-egged the simultaneousness of the fertilisation and birth. The possibility of a concordancy by serious physical and mental suffering with a view to prevention is of great significance for the twins themselves and for the identification. We are thinking especially in the case of tuberculosis and malignant tumors in which case the concordancy is greater in the case of the one-egged twins than two egged twins².

Case 1. A 32-year old football player who has never been ill before, and who is very strong collapses after a match and dies. After autopsy: hearthypertrophy, general artericcolosis, especially of the coronary vessels, large thymus with signs of activity, hydro-nephrosis of the left kidney and hypertrophy of the right. Shortly afterwards whilst bathing his twin brother suddenly dies. No Autopsy.

Case 2. A 26-year old man who has severe headache after tennismatch develops a coma a few hours later. He dies the next day. Diagnosis: Subarachnoidal bleeding. No

² E. Jokl and J. B. Wolffe give an example of a concordant *Mors subita* of two identical twins: cfr. *Sudden nontraumatic death associated with physical exertion in identical twins*. A. Ge. Me. Ge. vol. III, fasc. II, pp. 345-46 (1954).

autopsy. His brother dies shortly after as a result of a physical strain, a burst aneurysma of the arteria cerebri media, was found on pathological examination.

I have observed a similar case: Sudden death of one half of the twins. The other one who had come immediately after he had been called died on entering the farmhouse, where his brother had passed away. No autopsy.

Discordant appearance of disease with one-egg twins always refers back to unfavourable influences of their surroundings, which have been experienced by one half and not by the other. These are of importance in eliminating these influences, and these twins can make a contribution in order to aid preventive medicine and public health.

In my opinion the future many medical problems will be solved with the aid of twins. In Holland preparations have been made to facilitate the future examinations of twins. In the first place the chairman of the Central Bureau of Statistics has given his co-operation. In this office all twins born since 1950 have been registered separately. In the second place a card index has been prepared in the Institute of Preventive Medicine in Leiden on which the general health of offsprings of twins is recorded. In order to achieve this the collaboration of the gynaecologists has been obtained, but the number of results obtained is only a small fraction of the total number of twin births. Nevertheless the differences of the placentas is a useful tool in the hands of those, who have to distinguish the nature of the one and two-egged twins. In the third instance a club for twins is being founded which besides various cultural activities should also help medical research problems. The anthropogenetician can make a contribution to the differential diagnosis carried out in hospitals. A good family tree can throw light on the judgment of certain illnesses. In the field of preventive medicine it can play a part in tracing secondary cases in near relationship and in the judgement of marital choices. In the case of population genetics it can with the aid of statistics give indications which lead to the good health of the nation. In common with social medicine it covers the whole nation, not just the individual. A society which, however, characterises itself by a biological affinity between the members.

Deventer (Holland) 15 July 1955.

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Autorizzazione del Trib. di Roma N. 2481 di registro – 9 gennaio 1952

TIPOGRAFIA POLIGLOTTA VATICANA