

the watercolour in Holl's paper not only has the earring but also an indistinct word between "Mozart's" and "Ohr." He says that this refers to the younger son and that the attribution to Mozart was a mistake of Nissen's. It would be interesting to know the present whereabouts of the watercolour so that it could be studied in more detail. In the meantime we are forced to the conclusion that there is no portrait showing the left ear of the composer himself.

A final question remains. Who first gave this striking but rare abnormality its present eponym? It may be that the practice resulted from Gerber's paper being published in a widely read clinical journal. Justification for the label, however, seems to be scant, and the attribution in the quotation at the beginning of this account may need to be refuted as strongly as the suggestion that the anomaly represents a primitive throwback.

We should like to thank Jean McCulloch of Dudley Road Hospital, Birmingham, for putting the expertise of her photographic department at our disposal.

References

- 1 Anonymus. L'oreille de Mozart. *La chronique médicale* 1898;5:576.
- 2 von Nissen GN. *Biographie W A Mozart's. Herausgegeben von Constanze, Wittve von Nissen, früher Wittve Mozart.* Leipzig; Breitkopf and Hartel, 1828.
- 3 Gerber PH. Mozart's ohr. *Dtsch Med Wochenschr* 1898;24:351-2.
- 4 Holl M. Mozart's ohr. *Mit Anthropol Gesellschaft (Wien)* 1901;21:1-12.

British Postgraduate Medical Federation, London WC1N 3EJ

ALEX PATON, MD, FRCP, regional postgraduate dean

Ear, Nose, and Throat Department, Dudley Road Hospital, Birmingham B18 7QH and Sandwell District General Hospital, Birmingham

AHMES L PAHOR, MB, FRCS, consultant surgeon

Hospital for Sick Children, London WC1N 3JH

GERALD R GRAHAM, BA, MD, consulting clinical physiologist

Correspondence to: Dr Paton, British Postgraduate Medical Federation, 33 Millman Street, London WC1N 3EJ.

Rachmaninov and Marfan's syndrome

D A B YOUNG

Large hands may not be essential for virtuoso pianists—witness Hofmann and Moiseiwitsch—but they must surely be advantageous when playing works by Sergei Rachmaninov (1873-1943). The distinguished pianist Cyril Smith thought his own hands were large, each being capable of spanning a twelfth; but Rachmaninov's hands, long and tapering, were the largest he had ever seen, with a stretch so wide that they "covered the keyboard like octopus tentacles."¹ When it came to playing Smith says that he could achieve Rachmaninov's feat of playing as a chord C, E^b, G, C, and G with the left hand but was defeated by his Russian friend's right hand stretch on the chord C (2nd finger), E, G, C, and E (thumb under). Smith comments: "This was a scarcely credible performance, which was probably unique."

This unusual fingering of the C major chord requires much more than simply a giant hand. To be able to stretch the thumb under the hand to that extent (nine inches) an extraordinary degree of extensibility is required. A possible explanation is as follows. If, in withdrawing his hand from the keyboard after playing that chord and without altering the disposition of the thumb relative to the fingers, Rachmaninov had clenched his hand the opposed thumb would have extended well beyond the ulna border of the hand. This would have constituted a classic example of the thumb sign indicating Marfan's syndrome.²

Marfan's syndrome

Marfan's syndrome is a hereditary disarrangement of connective tissue affecting one or more of three systems: skeletal, visual, and cardiovascular.³ Of the skeletal features, the most characteristic are



Sergei Rachmaninov (1913).

the excessive growth of long bones, leading to greater than normal stature and to limbs disproportionately long compared with the trunk, and disproportionately long and slender fingers and toes (arachnodactyly). The head is often narrow (dolichocephalic) with long facial features. A striking sparsity of subcutaneous fat exaggerates the already linear structure. Other skeletal abnormalities that may occur are overgrowth of the ribs, leading to anterior chest deformity, and weakness and laxness of ligaments, tendons, and fasciae that may produce kyphoscoliosis, pes plana, loose jointedness, and malpositioned ears. In the visual system dislocation of the lenses is diagnostic of the condition; myopia due to increased

Downham Market, Norfolk PE38 9ND

D A B YOUNG, MA, MPHIL, formerly principal scientist, Wellcome Foundation

Correspondence to: Dr D A B Young, 23 Hillcrest, Downham Market, Norfolk PE38 9ND.

First page of Rachmaninov's piano concerto No 2 in C minor. (Reproduced by kind permission of Boosey and Hawkes Music Publisher's Ltd.) These opening chords are rarely performed as written, being either all split or some broken; the danger lies in the *poco a poco cresc.*, when a spread out hand may mis-hit. Chords demanding great extensibility are found in the final prelude of Opus 32.

A Monsieur N. DAHL

Second Concerto

I.

S. Rachmaninoff, Op. 18.

Moderato. ($\text{♩} = 66$) rit. - a tempo

2 Flauti.
2 Oboi.
2 Clarinetti in B.
2 Fagotti.
I. II.
4 Corni in F.
III. IV.
2 Trombe in B.
3 Tromboni e Tuba.
Timpani in G. As. C.

Moderato. ($\text{♩} = 66$) rit. - a tempo

Pianoforte. *pp* *poco a poco cresc.* *sf* *con passione*

Violino I.
Violino II.
Viola.
Violoncello.
Basso.

Moderato. ($\text{♩} = 66$) rit. - a tempo

Copyright 1901 by Edition Guthel, Leipzig
Copyright assigned 1947 to Boosey & Hawkes Inc., New York, U.S.A. for all countries
All rights of reproduction in any form reserved B. & H. 16674 Printed in England

axial length of the eye, often severe, is common, although the relatively flat cornea seen in nearly all patients with Marfan's syndrome tends to modify the myopia. The cardiovascular features include aneurysms, especially of the ascending aorta, and valvular insufficiencies leading to congestive heart failure.

The extraordinary size and extensibility of Rachmaninov's hands might indicate Marfan's syndrome. His appearance conformed to the skeletal features of the disease given above. He was very tall (193 cm) and slender. Photographs show him to have had a narrow head with a long, thin nose, prominent ears set at an angle, and a lack of subcutaneous fat.¹⁶ In a group photograph taken when he was 19 he is seated with his teacher Arensky and two other pupils. Although he must have been fully grown, his shoulders are no

higher than those of his companions. This is analogous to the evidence for Abraham Lincoln's being abnormally long limbed^{7,8}: when sitting down he was no taller than men he towered over when standing up. Other photographs and drawings of Rachmaninov support his having arachnodactyly.

Rachmaninov may well have been myopic. In 1907 in Dresden at the age of 34 he suffered disabling eye strain. He wrote that after weeks of intensive proof reading of music "my eyes are quite ruined. In doing any strenuous writing or reading the eyes go misty and the head aches badly."¹⁴ At first glasses were prescribed, but within weeks an ophthalmologist had specifically countermanded this and the successful treatment consisted of eye massage and the avoidance of all reading and writing by artificial light. Possibly related to this

eye strain were bouts of a severe, stabbing pain in the right temple that began in Russia before the first world war and increased every year in frequency and severity until in 1921 he spent time in hospital undergoing treatment, but without success. In Russia he had always attributed these pains to eye strain and continual bending over the manuscript while composing. After leaving Russia for the last time in December 1917 he was forced by this trouble to give up composition for three years, and he found relief from it only in his recital work. Both these problems, I suggest, were due to difficulties of accommodation and convergence resulting from myopia. Lastly, it would appear from photographs that Rachmaninov did not use reading glasses in his 50s and early 60s.

Rachmaninov seems to have been free of the cardiovascular features of Marfan's syndrome. In fact, some 40% of those affected by the syndrome have normal cardiovascular findings on auscultation,³ although in almost all cases echocardiography will show abnormalities.

In diagnosing Marfan's syndrome more reliance is placed on the presence of hard manifestations (for example, subluxated lenses and aortic dilatation) than on the soft features (myopia, tall stature, lax joints, and arachnodactyly) on which my conjecture relies. This is not, however, to deny the possible presence of the hard manifestations in Rachmaninov, as in a substantial proportion of cases they can be established only with the aid of the laboratory tests of slit lamp examination and echocardiography.³

Large hands and artistic genius

Does entertaining this conjecture help at all in understanding the life of Rachmaninov? His life was plagued by minor illness, which

had important consequences for his musical career both as a composer and as a performer. Thus, at intervals from his mid-30s, in addition to the eye strain and headaches, he suffered disabling back pain, stiffness of the hands, arthritis, and, for a while, a strange bruising of the finger tips while performing at the piano (a microvascular fragility, perhaps the result of connective tissue disorganisation arising from the syndrome), all of which seriously interfered with his work. The stoical manner in which he faced his final illness makes it unlikely that these were trivial complaints magnified by hypochondria; but when seen in terms of Marfan's syndrome they allow us to have a better appreciation of his difficulties.

In conclusion, I should add that Rachmaninov's eminence as a pianist was founded as much on his interpretation of the music of others, especially Chopin, as on the extraordinary virtuosity he displayed in performing some of his own compositions. Undoubtedly, his hands contributed to his virtuosity; but for his interpretation of others' work it was artistic genius, not large hands, that made his performance so memorable.

References

- 1 Smith C. *Duet for three hands*. London: Angus and Robertson, 1958:79, 82.
- 2 Walker BA, Murdoch JL. The wrist sign: a useful physical finding in the Marfan syndrome. *Arch Intern Med* 1970;126:276-7.
- 3 Pyeritz RE. Marfan syndrome. In: Emery AEH, Rimoin DL, eds. *Principles and practice of medical genetics*. Vol 2. London: Churchill Livingstone, 1983:820-35.
- 4 Bertensson S, Leyda J. *Sergei Rachmaninoff—a lifetime in music*. London: George Allen and Unwin Ltd, 1965.
- 5 Norris G. *Rachmaninov*. London: J M Dent and Sons Ltd, 1976.
- 6 Piggott P. *Rachmaninov*. London: Faber and Faber, 1978.
- 7 Gordon AM. Abraham Lincoln—a medical appraisal. *J Ky Med Assoc* 1962;60:249-53.
- 8 Schwartz H. Abraham Lincoln and the Marfan syndrome. *JAMA* 1964;187:473.

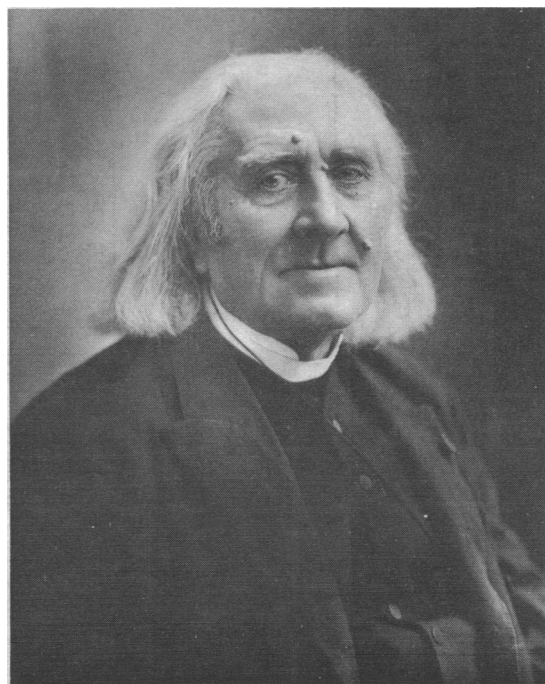
Enthusiasms: a tropical wreath for Liszt

V BASNAYAKE

Franz Liszt, born on 22 October 1811, died on 31 July 1886. Too poor to visit his grave in Bayreuth but enriched beyond words by his music, let me commemorate the centenary of his death by winding a wreath of tropical flowers as a thank offering before the muse.

The inmost array of the wreath shall be of jasmines, bestrewn with a dozen of another fragrant flower, the purple brunfelsia, to mark my gratitude for the 12 études, written by Liszt at the age of 15. These piano studies are excellent fare for amateur performers who lack the time or the talent to play concert études such as those of Chopin or the later Liszt. For me the 12 studies have been daily company for years, though numbers 5 and 10 remain difficult. In 1820, at the age of 9, Liszt gave his first public concert in his native land, Hungary. From then on he received international recognition as a prodigy. The Paris press called the 12 year old boy the eighth wonder of the world. Gall, the phrenologist, wished to make a plaster cast of the Wunderkind's head.

The second whorl of my wreath shall be bright with the flower of the flamboyante to denote the young adult phase of Liszt, when he was virtuoso supremo in pianoforte performance, exerting a magical



Franz Liszt. (By permission of the Royal College of Music.)

effect on his audiences. To this day Liszt is synonymous with the ultimate in piano virtuosity. His *Transcendental Studies*, which are a transmogrification of the aforementioned 12 studies, the *Paganini Studies*, and the *Operatic Transcriptions* of this period are unapproachable except to virtuosos. But difficult pieces are often