times he has had skiagrams taken of the chest, and many stool and blood examinations. The only noteworthy feature of all these is that he has a persistent eosinophilia of 15-23% with a white cell count of 7,000-10,000.

Discussion

In neither case is there any obvious indication that the cause of the condition is to be found in the first four of Duke-Elder's categories; nor had either patient been given isoniazid (Sutton and Beattie, 1955), digitalis (Wagener *et al.*, 1946), barbiturates (Carrillo *et al.*, 1938), streptomycin (Sykowski, 1951), gold (Foster, 1943), chloramphenicol (Wallenstein and Snyder, 1952), or sulphonamides (Mansour, 1945). They had not been exposed to carbon monoxide (Casanovas, 1944), bitten by snakes (Guttmann-Friedmann, 1956), or had a cold permanent wave (Robson and Cameron, 1949); they were not addicted to *Catha edulis* (Baird, 1952), or infested with ascaris. They both smoked cigarettes, but not heavily—fewer than 20 a day. There are two factors common to each history: each patient had received trivalent antimony injections, and both developed neurological symptoms at about the same time, the interval being only a few days. The latter suggests that the cause of the illness may have been infective and not related to the antimony.

Summary

Two cases of optic neuropathy associated with visual disturbances and indefinite fundus changes are described as occurring during or following a course of injections with trivalent antimony compounds. The association has not been previously reported.

The patients developed symptoms within a few days of each other, and an infective basis cannot be excluded.

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The new Biochemical Laboratory which is being built in the Royal Infirmary, Edinburgh, at a cost of £56,000 is designed to do more than accommodate the routine analytical work of the hospital, important though that is. (At present this involves some 80,000 quantitative analyses a year and the work is growing both in volume and complexity.) Facilities will also be provided for work as the reference laboratory of the South East (Scotland) Region and for research. This last, important in any teaching hospital, is doubly important here, since the laboratory also acts as the University Department of Clinical Chemistry. The new building will release the present laboratories, which are now far too small for their purpose, to give urgently needed space to, for example, the Departments of Therapeutics and Cardiology. The plan is the work of Mr. A. A. Dixon, A.R.I.B.A., the Royal Infirmary architect. It gives routine laboratory space for 20 analysts, a range of special-purpose rooms for chromatography, electrophoresis, fluorometry, etc., eight or nine research rooms, and the accompanying offices, store-rooms, workshop, library, and reading rooms. It is hoped that the building will be completed before the next International Congress of Clinical Chemistry, which is to be held in Edinburgh in August, 1960.

SERUM CONTAINING THREE Rh AUTOHAEMAGGLUTININS

BY

E. R. GOLD, M.D.

ELIZABETH W. IKIN, B.Sc.

AND

A. E. MOURANT, D.M., M.R.C.P.

National Blood Transfusion Service, Bristol, and Blood Group Reference Laboratory, Lister Institute, London

The occurrence of auto-antibodies belonging to the ABO system has been known since they were first demonstrated by Dockeray and Sachs (1941), followed by a number of other workers whose papers are summarized by Race and Sanger (1958).

The occurrence of specifically identifiable auto-antibodies belonging to other systems in the sera from cases of haemolytic anaemia was first clearly demonstrated by Weiner, Battey, Cleghorn, Marson, and Meynell (1953), who showed the presence of anti-e both in the serum and adsorbed on the red cells of a patient who was e-positive. Numerous similar cases, likewise summarized by Race and Sanger (1958), have since been found. Each serum has, however, been shown to contain one or at most two auto-antibodies. In the present case three distinct Rh antibodies, each specific for one of the patient's antigens, were found in one serum.

Case Report

The patient, Mr. C, of Bucharest, suffered from chronic lymphatic leukaemia with secondary haemolytic anaemia controlled by cortisone and repeated transfusions. The results described refer to his blood before any transfusions were given.

The patient's cells showed agglutination in the direct anti-human-globulin test, and on treatment with papain or with compatible serum and dextran. It was thus possible to group his cells only by means of saline-agglutinating antibodies or after removal of auto-antibodies by elution. The results were as follows: A₁ CcDee (probably CDe/cde), M, S+, P+, Lu(a-), Le(a-b+), Fy(a-).

The serum was found to contain albumin-agglutinating anti-C+anti-D and incomplete anti-e demonstrable only by means of the anti-human-globulin test or the use of papainized cells. In albumin tests at 37° C. the titres were found to be 16 with CDe/CDe and with Cde/cde cells, and 8 with cDe/cde and cDE/cDE. Cells of genotype cde/cde were not agglutinated in albumin. A strong non-specific cold agglutinin was detectable at 4° C.

The anti-e was first detected by adsorption on to cde/cde cells and elution by the method of Weiner (1957), the eluate being tested against papainized cells. It reacted strongly with cde/cde cells, not so strongly with cDE/cde and not at all with cDE/CDE. When the original serum was tested by means of the indirect anti-human-globulin test, the only Rh genotype giving negative results was the rare cDE/cDE, of which we were fortunately able to obtain an example. Cells of genotype cDE/cDE showed zoning when an anti-globulin titration was done, being negative with the patient's undiluted serum and weakly positive with dilutions from 1/4 to 1/16.

The analysis of the serum, however, depends mainly on direct tests of the whole serum against cells of a variety of genotypes: there was sufficient serum only for a few absorption tests and for the one elution test already mentioned. A pure anti-C was prepared by absorption with cDE/cde cells, but absorption with Cde/cde removed most of the anti-D as well as the anti-C. Absorption with CDe/cDE removed all antibodies, showing anti-f to be absent, or

present only in such small amounts as to be removed non-specifically by absorption.

The combination of the three antibodies found does not appear to have been described before. It could arise by ordinary immunization only in a person of the rare genotype *cdE/cdE*. It is, moreover, interesting to note that only donors of this genotype would have been compatible with this patient, who belonged to the commonest of all Rh phenotypes. He had antibodies against three of his own four main Rh antigens.

Summary

The serum of an untransfused patient of Rh phenotype *CcDee* (probable genotype *CDe/cde*) suffering from chronic leukaemia and secondary haemolytic anaemia was found to contain the Rh antibodies anti-C, anti-D, and anti-e.

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Medical Memoranda

A Psychological Analysis of the Munchausen Syndrome: Request for Information

Following the research initiated in 1954 into the Munchausen syndrome by Collie and Grygier,¹⁰ we are interested in ascertaining the present whereabouts of the undermentioned patients whom we have investigated and who are well-known examples of the condition.

Using the principles adopted by Asher,³ we have deliberately altered the patients' names, but those doctors who encounter them will, we hope, have no difficulty in recognizing them from the descriptions and pseudonyms.

Case 1.—A man, now aged 23-25, generally uses the name Austin Capp, but occasionally Chambers, Stephenson, Prince, or Rolls. He is asthenic, fair, about 5 ft. 8 in. (173 cm.) in height and of average intelligence, and generally gives an address in High Wycombe. He is admitted following abdominal pain or symptoms of meningism and has had numerous laparotomies and lumbar punctures, usually discharging himself from hospitals. His abdomen is a mass of scars. He exhibits a mixed abdominal and neurological picture of Munchausen's syndrome.³ He has mainly been admitted to hospitals in the London area, but his circuit includes those in the rest of England and Scotland. We last encountered him in Aylesbury in June, 1957. His case has been briefly reported by Sanderson²² and referred to by Chapman.³

Case 2.—A woman, now aged 39, generally uses the name Winifred Keats and Winifred or Joyce Blokeman, but more recently Joyce Allcrook, and occasionally Joyce Morris. She is auburn-haired, with a freckled face, 4 ft. 10 in. (147 cm.) in height and extremely obese—17 stone (108 kg.)—and on admission usually gives an address in the neighbourhood of the hospital. She has bilateral opaque nerve fibres and congenital colobomata, and bifrontal burr-holes due to a prefrontal leucotomy in 1952. Her abdomen is a mass of scarring. She is a mixed example of the abdominal and neurological varieties of the syndrome, and is generally admitted complaining of severe abdominal pain or with symptoms suggesting pituitary or hypothalamic disturbance. More recently she has occasionally presented herself as a cardiological problem. She usually discharges herself, and confines her activities to London and the suburbs. We last heard of her in North London in December, 1957. She has previously been reported on four occasions.^{6, 7, 13, 20}

Case 3.—An Irishman, now aged 31, generally uses the name Ernest John Mortlake, but occasionally Chars, McCreary, Nylon, Kellogg, and Finch. He has been described as short, beetle-browed, with thick, dark hair, and

the appearance of a mental defective, and is often known as "The Baron." He is frequently found having collapsed in a pool of blood near the hospital of his choosing, and may tell onlookers that he is on his way to a monastery. He is an example of the pure haemorrhagic variety of the syndrome and generally presents himself with bleedings from the ears, nose, mouth, and urinary tract, together with renal colic. He is generally thought initially to be suffering from a severe haemorrhagic disorder, and exhibits a remarkable affinity for pethidine. He has two abdominal scars—one in the R.I.F. and the other in the left hypochondrium due to an alleged splenectomy. There are scars of numerous "cut-down" incisions. He has been admitted to hospitals all over the British Isles and perhaps in France. We last heard of him in Hertfordshire in January, 1958. There are many references to him in the literature, including a detailed account by Grant.^{1, 2, 4, 5, 8, 9, 11, 12, 14-19, 21, 22-25, 27}

Case 4.—A man, now aged 40, uses the name Arthur Flitworth. He is good-looking, carefully dressed, a public-school man with a smooth manner. He is superficially plausible and exhibits flagrant pathological lying, usually asserting that he is engaged on important business, and he has enough background knowledge to keep up the pretence. He has facial scarring together with scars of bilateral craniotomy and frontal sinusotomy, the former operation carried out in Canada. He gives a history of a head injury which followed an air crash, gunshot wound, or bomb explosion. His story varies according to the hospital, and he sometimes complains of C.S.F. rhinorrhoea which resulted in his craniotomy. He is an example of the neurological variety of the syndrome and is generally admitted following epistaxes and a succession of epileptic seizures which do not appear to yield to massive sedation. More recently he has been admitted to a few hospitals complaining of pain in the chest and haemoptysis which is thought to be self-induced, and he generally discharges himself after having caused considerable disturbance in the wards. He has been admitted to hospitals and neurosurgical units throughout the country and in Canada, and was last heard of at the Brook Hospital in December, 1957.

Case 5.—A woman, present age 49, generally uses the name Elsie Shackleton and Elsie de Coverley, but also a great many other names, including Joan Summer, Jean Hops, Joan Lark, Joan de Coverley, Joan Malkin, Joan Morris, Elsie Layton, Elsie Jeans, Elsie Jackman, etc. She is Case 3 of Asher's original article³ and has also been referred to by Wilks.²⁶ She is 5 ft. 1 in. (155 cm.) tall, weighs 7½ stone (47.6 kg.), has a sallow complexion, and frequently gives a previous history of a number of fictitious operations for stomach trouble performed at the Royal Devon and Exeter Hospital. She is an example of the abdominal variety of the syndrome, and is usually admitted following severe abdominal pain and a history of recent haematemeses. Her abdomen is a mass of scars, but in addition she has mitral stenosis, and more recently has gained admission to hospitals with anginal pain and breathlessness, and is sometimes thought to have had a myocardial infarct. She now has a left Horner's syndrome resulting from a left cervical ganglionectomy that was carried out for cardiac pain in 1955. Most of her admissions have been to hospitals in London and the Home Counties, and her last known appearance was at Lambeth Hospital in September, 1957.

Case 6.—A woman, now aged about 37, and Case 2 of Asher's original article.³ She uses three names—Elsie Packoma, Margaret Coke, and Elsie Silverborough. Her abdomen is a mass of scars and she is an example of the abdominal type of the syndrome. Her itinerary includes hospitals in the London and Manchester areas, and she would sometimes maintain that her previous operations had been done by a "house-doctor" in Houston, Texas. She was last heard of by us in March, 1951, at St. James's Hospital, Portsmouth.

We have traced over 120 admissions on one of these patients, and the others do not lag far behind. To our knowledge they still continue their peregrinations, and we should like to follow up their histories.