Mozart ear alone is an autosomal inherited trait. The association of external ear anomalies with urogenital abnormalities may or may not be genetic, but Mozart's ear anomaly was probably genetic since it was probably transmitted from Mozart to one of his sons, as indicated by Dr Paton and colleagues. EUROCAT, action of the European Community for the epidemiological surveillance of congenital anomalies, provides population based data on the association between ear and urinary abnormalities. Out of a population of 17 434 cases of congenital anomaly (live births 15 862, stillbirths 929, and aborted fetuses 643) registered in a reference population of 770 626 births from 1980 to 1983 in 18 EUROCAT registries the number of cases of congenital anomaly of the ear was 623 and the number of cases with an anomaly of the urinary system 911; 78 had both anomalies, indicating that the association is more frequent than by chance ($\chi^2=69{\cdot}4$, 1 df). The urinary malformations were renal agenesis in 36 cases, cystic kidney in 20, obstructive defect of the ureter in 6, other anomaly of the kidney in 15, other anomaly of the ureter in five, and anomaly of the bladder and the urethra in eight.

Mozart probably did have at least one Mozart ear, though some doubt this.[10 11] If he did, and taking account of the fact that he did have a chronic kidney ailment, there is a strong case for some sort of congenital anomaly of the urinary tract as the underlying cause of his death.

I thank Dr P de Waele for providing the data from EUROCAT, and Mrs G Geffray from the Bibliothek der Internationalen Stiftung Mozarteum Salzburg for bibliographical help.

LUCIEN KARHAUSEN

Paris 75004, France

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Points

Coffee, chlorogenic acid, and cholesterol

Drs A K KOTHARI, G H B MARTIN, and M T C WOO (Nuneaton CV11 5TW) write: Drs M N Clifford, R Walker, and J Wright (31 January, p 312) state that coffee composition must be controlled in any investigation of a proposed relation between coffee, cholesterol metabolism, and bile acid excretion[1]; they emphasise the importance of chlorogenic acid concentrations in coffee. We recently completed a study of six volunteers who drank instant dark roast coffee of known chlorogenic acid content: 3·85% dry base. The volunteers drank six or more cups of black coffee, averaging 113 mg coffee/kg body weight daily. All volunteers underwent estimations of cholesterol concentrations at weekly intervals. After two baseline estimations they drank tea without milk for three weeks, followed by black coffee for three weeks. There was a non-significant reduction in serum cholesterol concentration while the subjects drank tea, followed by a non-significant increase in cholesterol concentration while they drank black coffee. These results were similar to those of a previous study of six volunteers drinking coffee of the same chlorogenic acid content.[2] The chlorogenic acid content of coffee varies considerably; some dark roast ground coffees may have as little as 0·18% dry base chlorogenic acid, whereas mild roast soluble powders contain up to 10·73% (M N Clifford, personal communication). Chlorogenic acids include cynarine[3] and are known to reduce serum cholesterol concentration, yet some studies have shown a definite increase in cholesterol concentration in coffee drinkers.[4 5] This suggests that coffee contains hypercholesterolaemic factors as well as hypocholesterolaemic ones like chlorogenic acid. We have suggested (20 April 1985, p 1216) that the hypercholesterolaemic factor may be a surface active agent. Despite equivocal findings in these two small studies using coffee with a medium chlorogenic acid concentration further investigation of coffees with high and low concentrations is needed.

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Dr M R JACYNA (Department of Medicine, Ninewells Hospital and Medical School, Dundee DD1 9SY) writes: Several studies have shown an association between raised faecal bile acids and an increased risk of colonic cancer,[1 2] but the evidence for a similar link between faecal cholesterol concentrations and colonic cancer is at best inconsistent.[3] A far more plausible and simple explanation is that coffee consumption by an individual reduces bile acid synthesis rates. Dr Bjame K Jacobsen and Professor Dag S Thelle (3 January, p 4) have already reviewed evidence suggesting that coffee consumption may have an effect on specific hepatic enzymes, and data also show that caffeine has an effect on cytochrome P-450,[4] which is required by cholesterol 7-α hydroxylase, the rate limiting enzyme for bile acid biosynthesis.[5] As the major portion of cholesterol aimed at bile acid synthesis appears to be derived from the plasma lipoproteins[6] a reduction in bile acid biosynthesis might be expected to cause an increase in serum low density lipoprotein (LDL) cholesterol concentrations, and this has already been observed during treatment with chenodeoxycholic acid,[7] which reduces bile acid synthesis rates.[8] A similar effect is also seen with aging, where LDL cholesterol values increase as bile acid synthesis rates are reduced,[9] even though hepatic cholesterol biosynthesis remains the same.[10] As well as explaining the increased serum cholesterol concentration the proposed reduction in bile acid synthesis rates induced by drinking coffee may also explain the reduced risk of colonic cancer (by reduced synthesis of bile acids and consequent excretion into the gut).

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Controlled trial of a new cervical spatula

Dr C D SIDE (Tring, Herts) writes: Unfortunately the results of Dr Margaret R Wolfendale and others (3 January, p 33), in their welcome attempt to reduce the number of false negative smears, were sadly unconvincing because they underestimated the effect of human nature. While the reporters of the slides may have been blind (statistically speaking) the takers of the smears were certainly not. Possible bias at this point could not have been nullified by changing the order of use of the Ayre and trial designs as suggested in the paper. The Ayre spatula is in general use and as far as the taker was concerned the beginning of the study would have been at the point when the new spatula was introduced. Using a new instrument will consciously or subconsciously increase the degree of care exercised in its use—in this case the care exercised by the doctor or nurse in taking the smear with the new spatula. That the degree of care taken is important in the quality of the smear is not in dispute. The magnitude of this variable is difficult to determine and impossible in this particular study design. But it may have been of a similar magnitude to the apparent improvement in cellularity of smears and the increase in number of abnormal smears found associated with the trial spatula. The uncertainty could have been reduced by using two new designs, one very similar to the Ayre but sufficiently dissimilar to register with the smear taker, in addition to the Ayre design.

Reversal of female sterilisation

Mr IAN PAGE (Church Crookham, Hants GU13 0LP) writes: Mr J P Calvert (17 January, p 140) rightly emphasises the need for careful counselling of women requesting sterilisation, including the need to emphasise its permanent nature, but then suggests that the technique used (while needing to be effective) should allow reversal. Most patients asking for sterilisation want an operation with the lowest chance of failure; indeed, many are slightly annoyed to find there is a failure rate for all the current techniques. In those cases where the operation does fail they may sue for damages, and large sums have recently been awarded. The failure rate is lower with "cut and tie" methods (particularly if a confirmatory histological examination is carried out) than with laparoscopic techniques, though the latter's failure rate can be reduced by applying two clips to each tube. This is my current practice, but it does destroy more of the tube. Given that adequate counselling of patients should include discussion of change of circumstances, I feel that the technique used should be the one that gives the lowest failure rate with minimum morbidity rather than that most amenable to reversal. There are after all many other forms of temporary contraception. Whether it is morally right to expend scarce NHS resources in reversing "social" operations when there is a large waiting list of patients requiring medically indicated procedures is a question that every gynaecologist should also consider before agreeing to attempt the procedure.

Correction

How much should private medicine cost?

An error occurred in this letter by Dr M G Wright (7 February, p 374). The second sentence of the second paragraph should have read: "The inpatient stay for this was under 24 hours but did include overnight accommodation."