so often found in the rheumatoid knee, does not appear to be a contraindication to a successful arthroplasty of knee joint.[13]

At present, therefore, arthroplasty of the knee must be viewed with caution. No operation in any field of surgery carries certainty of success, and in the event of failure some salvage procedure must be available. After a failed total hinge replacement, especially if cement (methylmethacrylate) has been used to anchor the component parts of the joint within the femoral and tibial shafts, it can be exceedingly difficult, and sometimes impossible, to obtain an arthrodesis, which is the only salvage procedure available after a failed arthroplasty. In this event amputation is inevitable. The role of the artificial knee joint is thus somewhat limited, and the operation is best confined to patients with rheumatoid arthritis whose activities will be curtailed by disease of other joints in the lower limbs.

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Incest and Family Disorder

Despite reports by A. C. Kinsey and colleagues[1] and the evidence of clinical experience, incest has generally been considered rare. Now N. Lukianowicz[2] in a comprehensive study from County Antrim reports a prevalence of 4% for paternal incest among unselected female psychiatric patients, and among 700 psychiatric patients of both sexes 29 (4%) had some experience of other forms of incest. Among these 29 people the incest was between brother and sister in 15 cases, one grandfather and five of his granddaughters, uncle and niece in four cases, mother and son in three, and the two remaining relationships were between aunt and nephew.

Paternal incest was initiated by fathers between the age of 30 and 40 years when their daughters were aged between 5 and 14 years. The relationship continued on average for eight years, usually starting with the eldest girl but often later involving younger siblings. They were usually members of large working-class families living in cramped quarters in industrial towns or living in extreme isolation in rural areas. The fathers were habitually unemployed, often themselves from broken homes, and had usually left home after little schooling to work sporadically as labourers. Of 26 fathers studied all were of average intelligence, none was psychotic, but 14 were diagnosed as inadequate psychopaths, 5 as aggressive psychopaths, and 4 as alcoholics. As reported by other authors,[3] many of these men appeared to be highly sexed, engaging in regular intercourse with the victim, her siblings, mother, and sometimes a mistress as well.

The mothers were on the whole dejected, felt overburdened by their large families, and had a husband who was described as habitually unemployed, inefficient, "good for nothing," or an aggressive, demanding bully. Eight of the mothers were promiscuous and showed psychopathic traits, two were frigid, three were excessively anxious, one had died, and twelve were regarded as without gross personality deviation. They usually colluded with the husband in his behaviour or chose to deny its existence.

Of the 26 daughters, 11 became promiscuous and had psychopathic traits such as drug abuse or delinquency; five girls developed frigidity after marriage, and three of these gave other evidence of hysterical personality disorder. Four girls developed frank psychiatric symptoms. In one this was an acute anxiety neurosis clearly precipitated by her father's continual threats of violence if she disclosed their clandestine relationship, and three girls developed depressive reactions with repeated suicide attempts. Only six girls (23%) showed no apparent ill effects from their incestuous relationship.

As to other types of incest, the initiating partner was the woman in the three cases of mother-son and the two of aunt-nephew incest. All three of the mothers had a psychiatric abnormality. One was schizophrenic, another markedly neurotic, and the third later developed an involutional depression. One of the sons was schizophrenic, the next mentally subnormal, and the third left home after two years of incestuous relationships. One of the two aunts was clearly hypomanic and the other elated and sexually promiscuous. Psychiatric abnormality did not figure prominently in the other relationships, and 27 of the 30 partners involved in brother-sister incest were free from personality disorder, neurosis, and psychosis. Lukianowicz concludes that none of the participants in incest with partners other than father showed any serious ill effects and the majority of them showed no effect at all. Of those involved in paternal incest the high prevalence of disordered behaviour confirms the view expressed by other authors[4] that the victims of incest develop character disorders rather than psychosis or neurosis, but in the presence of such gross family pathology it is not possible to isolate the incest as the cause of these abnormalities.

The offspring of incestuous unions have a greater morbidity and mortality than the average[5 6] and it seems likely that this accounts for the existence of the incest taboo in almost every known society. The strong emotion aroused by violation of the taboo suggests the existence of a set of general tendencies that need to be denied. Elaborate taboos designed to inhibit a particular behaviour do not develop in the absence of widespread impulses towards the expression of the prohibited act. Freud[7] accorded the satisfactory resolution of the conflicts aroused by incestuous wishes a central place in personality development but recognized that the prohibition is really culturally determined. Some daughters are provocative and fathers provoked, but incest occurs only when the normal constraints of the family or of society break down. This breakdown cannot be traced to a single source. The fathers are often oversexed, undercontrolled, and underoccupied. The mothers are overwhelmed and at times delegate the maternal role to their daughters, who may be willing to accept it. Indeed it has been argued that the incestuous relationship often holds together an otherwise disintegrating family.[8] These families

through poor social conditions and isolation either in a remote rural community or within a subculture in an industrialized town experience overcrowding, loss of privacy, and a sense of estrangement from normal society which facilitates breakdown of normal standards.

Such families commonly make heavy demands on medical and social services, so that the doctor or his colleagues in the community may be the first to suspect incestuous behaviour. The law reacts in a way which reflects society's abhorence of paternal incest and the offender is usually committed to prison, where his fellow prisoners may inflict their own crude additional punishment for his offence.[9] On discharge, if the family has not broken up, the incestuous relationship is commonly resumed in conditions made worse by the father's conviction. Early identification of families at risk and prompt intervention may offer some prospect of prevention.

Such families need sensitive, long-term social case work and major efforts to draw them into society. The high sexual drive of the fathers, whether due to lack of inhibition or biological excess, may be reduced by medication, and effective industrial rehabilitation might well be rewarded by a reduction in antisocial behaviour. Unless these family units can be helped to function more normally, they will continue to reproduce in each new generation the disordered behaviour of the last.

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Differences in Thyroid Cancer

The behaviour of thyroid cancer is extremely variable. Some tumours remain occult and either are discovered incidentally during necropsy or else produce deposits in the neighbouring cervical lymph nodes—the miscalled lateral aberrant thyroid.[1] In other cases there is the appearance of a well-differentiated skeletal metastasis in association with a longstanding goitre. There are also rapidly growing cancers that invade the surrounding tissues relentlessly, metastasize widely, and are among the most malignant of tumours.

Recently a rather different thyroid cancer, the medullary carcinoma, has been described.[2-4] It is composed of solid cords of uniform small cells separated by a fibrous stroma in which amyloid is usually present. Despite its undifferentiated appearance it is slowly growing, metastasizes late and chiefly to the regional lymph nodes, and may kill only after many years. It arises from the parafollicular, or C, cells, and secretes calcitonin. Sometimes 5-hydroxytryptamine and prostaglandins are also secreted, and the tumour has been associated with chronic diarrhoea and rarely with the carcinoid syndrome[5] and Cushing's syndrome.[6] It also has a genetic association with phaeochromocytoma.[7]

K. Franssila has recently reviewed 231 cases of thyroid cancer that occurred in Finland between 1958 and 1962.[8] All were carcinomata apart from one lymphoma. He classified the carcinomata into four categories: papillary, follicular, anaplastic, and medullary. Papillary cancer accounted for nearly half the cases, follicular and anaplastic cancer for a quarter each, and medullary carcinoma for the remaining 4%. The papillary tumour occurred much more frequently in women than did the other tumours, and it was spread over a wider age range than the other cancers, which occurred principally in elderly people.

There was also a difference in behaviour between the three tumours derived from follicular cells. The papillary cancer (like the medullary carcinoma) had the best prognosis, 83% of cases surviving for five years. It sometimes remained occult, and it frequently tended to metastasize to regional lymph nodes. Local infiltration was usually a late occurrence, and distant blood-borne spread was very uncommon. The follicular tumour, by contrast, had a 54% five-year survival rate and showed little tendency to infiltrate locally or spread to the local lymph nodes, but it was characterized by frequent haematogenous spread, especially to the bones and lungs. Anaplastic carcinoma had by far the worst prognosis, only 16% of patients surviving for five years. Early local infiltration was the rule, so that almost half the cases were inoperable when first seen. Metastases in regional lymph nodes and distant haematogenous deposits were common, being intermediate in frequency between the patterns noted in the other two types of cancer, and the lungs were principally affected. Skeletal metastases were much less common than in follicular carcinoma.

This work shows how the histological types of thyroid cancer can be correlated with the behaviour of the tumour and the patient's survival. The papillary, follicular, and medullary carcinomata appear to be biologically distinct tumours. It is noteworthy that the thyroid cancer that follows exposure to ionizing radiation is nearly always papillary.[9,10] In contrast Franssila found that follicular and anaplastic tumours occurred fairly frequently in goitrous thyroids. It would appear that anaplastic carcinoma often derives from a preceding follicular tumour and less frequently from a papillary one.

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Radiation Menopause

Though it is still employed in some centres, the treatment of dysfunctional uterine bleeding by induction of a radiation menopause has been largely superseded by hysterectomy. Chief among the reasons for this is the belief that patients treated by irradiation have an increased liability to the development of malignant disease in the genital tract, and a recent paper by D. S. Bamford and H. Wagman[1] draws attention again to these risks.

The radiation menopause has also been criticized on