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MEDICAL INSTRUMENTS IN THE ROMAN WORLD

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SUMMARY

By the beginning of the 1st century AD Roman medical instruments had begun to acquire the distinctive forms which they were to retain, more or less unchanged, for the next half millennium. They were carefully-designed, highly-crafted precision tools well-adapted to the range of surgical interventions and operations described in the contemporary medical texts.
Their versatility and multiplicity of function is discussed, as also is the evidence derived from apparently complete instrumentaria, *which sheds light on the form of medical practise undertaken by the people who used them.*

Practice two things in your dealings with disease: either help or do not harm the patient[1]. This advice, the clearest possible call for medical restraint, was repeated several times in the Hippocratic Corpus, and caution in a doctor was advocated as a positive virtue by most medical writers. The consequent reluctance to perform surgery or, perhaps more correctly, the judicious use of surgical interventions, is entirely understandable in an age devoid of sterile conditions, strong antiseptics, powerful anaesthetics or a proper understanding of anatomy, when *death.... was the occupational hazard of being a patient*[2]. For there is no evidence to suggest that in antiquity there was any appreciation of the need to sterilise medical instruments. It can, perhaps, be assumed that practitioners would have washed or cleaned their instruments, maybe even polished those whose decorative effect

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depended upon the contrasting colours of different metals. But only those instruments designated as cauteries, or others used as such, would have been routinely subjected to the beneficial effect of sterilisation by heat. The others, clean and shiny as they may have appeared, could often have harboured potentially lethal bacteria. Thus, even the simplest of surgical interventions, for example the suturing of a wound or the cutting of a vein in phlebotomy, might easily introduce harmful or life-threatening micro-organisms into the body of a patient already weakened through illness.

It is, therefore, no surprise to find that in the *De medicina* Celsus constantly re-iterated the need to treat - or, far better, avoid - inflammation (for which today we would read *infection*). Indeed, so frequently did *inflammation* occur that Celsus, with supreme brevity and clarity, articulated its four cardinal signs: *rubor et tumor cum calore et dolore*[3]. For Celsus was writing at about the time that medical and surgical equipment of diagnostic form was becoming increasingly numerous, varied and widespread throughout the Roman world[4]. Coinciding with an increase in the evidence for medical personne[1,5] it may be that this proliferation reflects a real increase in medical and surgical activity, and a corresponding rise in the occurrence of post-operative infection. Nevertheless, although recovery must always have been jeopardised by the use of unsterile instruments a sufficiently successful outcome to surgical treatment was evidently frequent enough to make it viable. In any case, while surgery might usually be regarded as a last resort[6] there would have been many occasions when there was no alternative. Moreover, the pressure on a healer to attempt treatment - not least the urgent needs of the patient to be released from pain and enabled to function normally again - must have been very considerable. The negative side, therefore, is the evidence of failed treatment, which is occasionally referred to in the medical literature[7], but is sometimes discernible, too, in archaeological sources[8]. On the positive side it should be remembered that the majority of instruments were made of iron or copper alloy or a combination of the two and that copper salts and corrosion products often inhibit the growth of bacteria. Furthermore, the level of craftsmanship displayed by the instruments is almost invariably of the highest order and compares favourably with the instruments of all later periods: if surgery had to be undertaken then at least Roman doctors could have had access to the best equipment.

As is clear from the classical medical literature healers in the Roman world could draw upon a wide arsenal of medical equipment. Much would have been made from organic materials, and Celsus mentioned implements of wood, leather, cloth, papyrus, reed, feather etc.[9]. Few examples of these have survived in the archaeological record, and rare, too, is the survival of such vulnerable materials as bone and glass. Thus, the majority of surviving identifiable medical equipment comprises surgical instruments and implements made of metal. But differential preservation applies also to metals, and those objects made of thin sheet or slender rods - notably bronze vessels and containers and iron blades, needles and probes - have often perished or have corroded beyond recognition. It is therefore important to bear in mind how partial a picture even the better surviving archaeological finds provide of Roman *instrumentaria*.

By the 1st century BC craftsmen in metals had a good understanding of and control over their materials. Those who made surgical instruments generally employed copper and its alloys and wrought iron/steel. Where an intricate form or surface treatment was required, whether for purely decorative effect or a specific function, or both, copper alloy was the normal medium. Sometimes a specific alloy-type or combination of alloy-types was chosen to enhance the decoration or improve function. Where robustness of the instrument or component took precedence over decorative appearance iron was usually selected as the most appropriate material. It was also favoured, above all, for blades and needles, where a hard, sharp and durable edge or point was sought. For, Roman smiths knew and exploited the advantages of steeling: a tough durable wrought iron blade could be given a sharp steeled edge by the process of carburisation. Galen[10], for example, knew that he could obtain the best quality scalpel blades from the Alpine province of Noricum, where, expressed in our terms, the ores of iron yield a natural steel.

References in lay and medical writers to gold or silver instruments should probably be taken to mean copper-alloy instruments with precious metal decorative inlays or overlays. Certainly, while there has not yet been a single discovery of an instrument of gold, and those of silver are restricted to rare examples of quasi-medical spatulae and ligulae, instruments inlaid with silver, niello or Corinithian bronze (*black gold*) are not uncommon[11]. Tubes and probes of lead and probes of tin are specified in the medical literature but are hardly represented in the archaeological record, and they must always have been comparatively rare.

But tin and lead were put to a much more extensive use as the alloy, tin-lead solder, which was commonly employed as a bonding medium to secure inter alia iron components to their copper-alloy handles[12]. Needles and bone chisels of iron were soldered into slender drilled tubular sockets in their copper-alloy handles, while some iron scalpel blades were soldered into simple slotted sockets cut into the end of their copper-alloy grip. Roman craftsmen employed both of these socket types in the manufacture of non-medical implements and utensils, too, but one very distinctive form of socket, a carefully-profiled keyhole-shaped slot, appears to have been used exclusively for surgical instruments. It occurs most frequently on scalpel handles with a rectangular grip (Fig.4,6-12)[13] but also comprises the mode of attachment of other composite copper-alloy and iron instruments: pointed-jawed spring forceps, with iron jaws slotted into a copper-alloy spring handle[14]; shears, with iron blades slotted into a copper-alloy spring handle[15]; and bone levers, with iron levers slotted into either end of a central copper-alloy grip[16] (Fig.8,5).

Duality of function is another characteristic feature of Roman surgical instruments. Many were designed as multi-purpose tools, not only the core instruments - surgical knives, hooks, probes, needles and forceps - but also some more specialised instruments, like the staphylagra (Fig.5,7) the design of which enabled it to be used in operations upon both the uvula and haemorrhoids, and probably in other operations, too[17]. A common device was to mount two instruments on one handle - one at either end, and many different combinations are known: scalpel/blunt dissector, blunt hook/sharp hook, double blunt hook, double needle, double probe, double bone lever, forceps/sharp hook, forceps/needle, forceps/probe, lithotomy knife/lithotomy scoop etc. There were sound practical reasons for the manufacture of combination tools. Instrument costs could be reduced, the doctor's kit could be kept relatively compact and portable, and an operation could be carried out with the minimum number of instruments, saving valuable seconds at a time when speed was of the essence.

Roman surgical instruments are further distinguished by the quality of their design and manufacture. Some are exquisitely decorated and some are plain, but virtually without exception they are carefully-designed precision tools finished to a very high standard. As with the tools of other craftsmen the optimum instrument design was developed in response to their perceived function, and that design remained unaltered until such time as the function changed or new manufacturing materials became available. In that the instruments were adapted to the human anatomy and operations thereon their function did not change over the centuries. Some, indeed, are closely paralleled even by their modern counterparts[18].

Just as impressive as the design of instruments was their manufacture, and wherever burial conditions have preserved the original surface of instruments they reveal, almost invariably, that whether cast or hand-forged all have been subject to a careful and detailed finishing process. This ranges from the immaculately smooth surface of those parts of instruments intended for insertion into the natural body orifices, wounds or incisions (Fig.5,8; Fig.9,1-6 and 8), to the finely-incised, often decorative, texturing of the shank of instruments requiring a secure, non-slip grip (Fig.3; Fig.1-7; Fig.7,1-3), or to the precise interlocking of finely-cut teeth on the jaws of the staphylagra or other toothed fixation forceps (Fig.5,5-7). The basic design and quality of manufacture of instruments seem to have remained much the same from the 1st to the 5th century AD throughout the Roman world, and such change as there was tended to be restricted to the style and techniques of decoration. Various studies of characteristic types of instrument decor[19] have shown the potential for postulating workshops with widely-traded products, while local manufacture appears to be indicated by instruments with idiosyncratic decorative features, as, for example, a scalpel handle with coloured enamel inlay[20] from the Romano-British town site of Caistor St. Edmund (Venta Icenorum).

Surgical instruments are rarely described and seldom even mentioned in the surviving classical medical texts, but Celsus' *De medicina* is an exception and contains much useful information on the usage and appearance of instruments, especially certain specialised types with which Celsus anticipated his readership would be unfamiliar[21]. This information, in conjunction with an upsurge in research on the archaeology of ancient medicine, has resulted in the identification of instrument types hitherto unrecognised in the archaeological record, and has widened and sharpened our knowledge of Roman instrumentation. Celsus' text is also instructive in demonstrating how much surgery could be undertaken with so few surgical instruments, how much could be done with non-medical implements, and how much involved non-metallic instruments, including, at the simplest level, fingers and teeth[22].

For general surgery the bare essential or core instruments comprised one or more examples of spring forceps, sharp hook, scalpel, needle and probe, the last three of which could also be put to use as cauteries. This was the basic surgical kit (Fig.1), defined already in the Hippocratic texts[23], which a physician was urged to keep with him at all times. With a cupping vessel (of bronze, glass or horn) and this simple kit a healer would have been prepared for most surgical eventualities. It would have enabled him to tackle a wide variety of treatments and operations, both mundane and specialised. Celsus, for example, describes operations for uvulectomy, anal fistula and piles, without any mention of the need for specialised instruments[24]. Clearly we should not underestimate the potential of seemingly simple sets of instruments. Their eminently portable nature is graphically illustrated both by depictions on stone reliefs and by archaeological discoveries of the kits themselves. They were neatly stowed in small folding wooden cases, leather pouches or tubular bronze boxes.

Especially illuminating is the kit found with a mid-3rd century AD inhumation in the Roman cemetery at Wehringen, Germany[25]. It comprised both surgical tools - a small leather case containing six core instruments - and pharmaceutical equipment - a bronze drug box with stone mixing palette and spatula probe. Likewise, the celebrated find from the Pompeii *palaestra* consisted both of drug boxes and core surgical tools[26]. The distinctive appearance of the cased portable surgical kit and the cupping vessel evidently made them readily recognisable symbols of healing personnel, a more compact identifier or *badge of office* than the equally characteristic scene of the physician examining his patient[27]. As the tombstone of the medicus Publius Aelius Pius Curtianus reveals[28], the box of instruments denoted a physician or healer and did not necessarily imply a surgical specialist: surgical instruments were not restricted to those who styled themselves *chirurgus*.

The scalpel, the foremost symbol of surgery, was a composite instrument of copper alloy and iron (Fig.1; Fig.4,6-12), whose distinctive double-ended form and commonly occurring *keyhole* blade socket had already been developed by the beginning of the 1st century AD[29]. Its careful design, combining a replaceable iron blade soldered into the socket of a copper-alloy handle with spatulate blunt dissector terminal, maximised function, economy and ease of use[30]. Most surviving blades are the larger examples of convex shape, but straight and concave types are also known, while rare finds of scalpels with tiny blades serve as a reminder of the diminutive instruments required for delicate eye operations etc. which so seldom survive.

The forceps of the core instrumentarium was a spring forceps, usually made of copper alloy (Fig.1; Fig.5,1-6) but occasionally fashioned in iron. The most commonly found type is that with unturned, smooth, square-ended jaws (Fig.5,3), a general-purpose fixation forceps, whose uses included dissection and surgical epilation for trichiasis[31]. Almost as frequently encountered is the toothed fixation forceps (Fig.5,5-6), a similarly versatile instrument used to fix, raise and excise skin, tissue or tumours. The third variety was a pointed-jawed forceps (Fig.5,1-2) which, like the modern anatomical forceps, often had rifled facetting on the contact face of the jaws to maximise grip and minimise tissue damage. Its use was stipulated in bone surgery and in the extraction of foreign bodies from the ear, but it must also have been used for delicate surgical work in a host of operations[32].

Sharp hooks (Fig.1; Fig.6,1-6) were an indispensable component of the portable kit. They were used primarily to retract and fix the margins of wounds and incisions or underlying tissue and structure but were also employed in the seizing and raising for excision of tissue or small structures, as in the operations for tonsillectomy, pterygium and contraction of the vulva[33]. Surviving examples are of copper alloy, with slender stem, often decorated with incuse mouldings at their distal end to ensure that the operator's fingers did not slip. To avoid tissue damage and inflammation the tip of the hook was worked to the finest point.

Less commonly found is the blunt hook (Fig.6,6-9), which served a similar range of roles to the sharp hook but in operations in which sensitive retraction was required and in which any puncturing was to be avoided. Above all it was specified as the instrument used to raise blood vessels, either to isolate them or as a preliminary to excision[34]. Occasionally found are double-ended instruments, with a sharp hook and a blunt hook at opposite ends of the stem (Fig.3; Fig.6,6), a combination especially well-suited to the operation for the excision of varicose veins[35].

Various types of needle are referred to in the medical texts. Those with an eye comprised an ordinary domestic type for stitching the end of a bandage, and surgical needles for suturing, ligating and passing a thread, while fine pointed needles were required for dissection and cauterisation and for perforating pustules, puncturing skin and haemorrhoids, raising the skin of the eyelid and transfixing small tumours on the eyeball[36]. The majority of these needles would have been tiny instruments made of iron and they have not survived, but one variety comprised an iron needle point fixed into the socket of a copper-alloy handle (Fig.7,4-5), or two points soldered into sockets at either end of a slender copper-alloy grip (Fig.7,2-3), and while the needle component has usually corroded away the handles are quite frequently found in surgical kits[37]. One distinctive needle type was made entirely of copper alloy, having a round-pointed needle tip,

a slender, often decorative, stem, and an olivary terminal (Fig.7,1). It has been convincingly identified as the instrument recommended for couching cataract[38], but it should neither be assumed that cataract couching was done exclusively with this type of needle nor that the *cataract needle* was restricted solely to that one operation.

One or more copper-alloy probes were an integral part of the core instrumentarium. They had multiple uses, not least of which was the exploratory sounding of wounds, incisions and fistulae, but also a wide range of other surgical and medical tasks, from the elevation of cartilage in a broken nose to the application of medicament to the eyeball. As with the spring forceps, where more than one example is found in a surgical kit it is usually evident that a range had been chosen to cover most eventualities[39]. The finest of the exploratory probes was the dipyrene, a double-ended instrument with a very slender stem and a tiny olivary expansion at each terminal (Fig.7,8), one of which was sometimes provided with a fenestration (Fig.7,7) to enable it to be used also for such operations as the treatment of anal fistula[40]. Simpler probes had a plain stem and a pointed tip at each end or a pointed tip combined with an olivary terminal (Fig.1; Fig.7,6). They could have served both as needles and cauteries in addition to dissecting and exploratory uses. Frequently found are the *cyathiscomele* and *spathomele*, olivary probes combined respectively with a slender scoop or a spatula, and the ligula, a tiny angled disc at the end of a slender pointed probe (Fig.1; Fig.7,9-11 and 14-16).

The medical uses of the three latter instruments were primarily pharmaceutical but also included surgical applications, one of which was cauterisation.

Cauterisation was very widely practised in ancient surgery, and it is quite possible that the beneficial effect of heating instruments was registered even if there is no evidence for intentional and systematic instrument sterilisation. For certain operations Celsus, Pseudo- Galen and Paul advocated use of a cautery knife[41], but the freest use of the cautery was in delicate surgery involving only small-scale interventions or in operations where an open wound was required, as in the release of pus. Generally, the applications of the cautery were in haemostasis, cauterisation of unhealthy or mortified tissue, especially ulcerations and carious bone, or cauterisation of healthy tissue in order to gain access to internal organs or structure. Such varied applications would have required a correspondingly wide range of instruments, differing both in shape and size, but few of these have been identified in the archaeological remains[42]. If, as their name implies, cauteries were often made of iron, then, like other instruments in that metal, few can be expected to have survived in a recognisable form. However, the absence is probably to be explained in part, too, by the fact that the cautery, unlike most other Roman surgical instruments, seldom needed to be a purpose-made tool. For, its role, as a vehicle for transferring and applying heat, could be served by any one of a range of probes, needles, blades or other instruments in the surgeon's kit as well as items of domestic or other non-medical use.

These, then, were the basic tools of surgery. Possession of a full range represented a certain financial outlay, labelled the owner a healer and equipped him for most surgical eventualities. But some practitioners employed larger or more extensive sets (Fig.2) while others used restricted sets of particular instruments for surgical specialisms (Fig.3). The fragmentary nature of archaeological evidence has made it difficult to gauge the original size of any instrumentarium, let alone attempt to establish any sort of norm for Roman medical kits.

However, as the better-contexted finds are subjected to study and new discoveries continue to be made a useful body of information is accruing. Of great value is the evidence from burials where, generally, the interred objects have survived best, and a major study of those finds[43] laid the basis for all future work. Equally fundamental and significant has been the first thorough and comprehensive publication of the medical instruments from the Vesuvian towns of Pompeii and Herculaneum[44]. The advantages of sepuchral evidence lie both in the relatively undisturbed context and in the fact that there is a high degree of control in the burial process: a decision was made to choose instruments and consign them to the grave.

The negative aspect, however, lies precisely in that selection

process, for it is impossible to establish whether a deceased healer's instrumentarium was buried intact. Here, the fortuitous *disaster finds* are of the greatest importance in preserving intact artefact assemblages, including medical kits, from an isolated moment in time. They can be expected, therefore, to convey a truer picture of the nature and scale of medical kits and equipment. Thus, spatial analysis of the Pompeii instruments has shed light on the level and extent of medical provision and location of healer's premises throughout the town[45].

Other exceptional finds tend to be those resulting from disastrous fires, whether accidental or hostile, as at Marcianopolis, (Devnya) Bulgaria, where a large *instrumentarium* was found on the floor of a building which had been destroyed in a conflagration in the first half of the 5th century AD[46]. Or, more recently, in the eastern part of the Roman town of *Ariminium*, (Rimini), Italy, where similarly freak conditions preserved the contents of a rich house, burnt down in the later 3rd century AD. These included, in one room, the medical and surgical *paraphernalia* of an extremely well-equipped medical practitioner[47]. The fire had consumed most of the organic objects and components, had melted the glassware, and had even fused together dozens of the metal instruments in clusters. Nevertheless, the importance of the discovery cannot be overestimated: when conservation and scientific and academic study are completed it will undoubtedly prove to be the biggest and most extensive instrumentarium yet known.

The Rimini *instrumentarium*, like some other large sets, has multiple examples of core tools together with pharmaceutical equipment and a wide range of specialised instruments.

Comparison of these sets[48] shows that in the form in which they have survived they usually number some 30-40 instruments (Fig. 2). However, since most of the sets are from graves their completeness is uncertain, and the Rimini find may give a truer glimpse of what the scale of things could often have been. While it is impossible to determine with what success a Roman healer employed his surgical instruments we can at least gain some idea of the range of operations and surgical interventions he attempted by identifying the functions of the different tools in his *instrumentarium*. This is, to be sure, a rather coarse measure which, even when used in conjunction with the contemporary medical texts, can only be expected to give an approximate and general impression. What emerges, however, is that the majority of the larger sets comprise core tools, pharmaceutical implements and specialised instruments (Fig.2)[49]. It is possible to interpret this as some confirmation of the Celsian ideal of *whole medicine*. For, with such an *instrumentarium* a doctor could theoretically, tackle all aspects of healing, from dietetics through drug treatments to surgery, both reactive and elective.

Furthermore, the frequency of occurrence of the different types of identifiable specialised surgical instruments in these sets, permits a crude assessment of the variety and scale of surgical specialisms.

Tenuous as are the results they tend to agree with the evidence from written sources[50]. Thus, the commonest specialist component comprises various combinations of tools for bone surgery and dentistry - dental forceps, sequestrum forceps, elevators, levers, chisels, crown trephines, curettes (Fig.8). Despite some overlap between groups other specialised instruments can be classified under the following headings: eye surgery - cataract needles (Fig.7,1); throat operations - staphylagra, staphylocaustes (Fig.3.; Fig.5,7-8); rectal treatments - clyster, rectal speculum, staphylagra, staphylocaustes (Fig.5,7-8; Fig.9,8); treatment for urinary disorders - catheters, lithotomy knife, lithotomy scoop, lithotomy hook (Fig.9,1-7); gynaecology/obstetrics - clyster, vaginal speculum (Fig.10), embryo hook, foeticide. Occasionally there is evidence suggesting specialisation within surgery: dentistry kits from graves at Belginum-Wederath, Germany[51], and Gadara, Syria[52]; a probable bone surgeon's kit in a grave at Aschersleben, Germany[53]; a tubular box of cataract needles found in the River Saone at Montbellet, near Lyon, France[54]; a lithotomy kit found in or near Rome[55]; and what may be the instrumentarium of a surgeon who specialised in throat operations, from Italy (Fig.3) [56].

The latter kit and that from Aschersleben are especially richly decorated, as are instruments in many Roman *instrumentaria*, while the lithotomy and cataract sets are impressively crafted, another recurrent feature of Roman instruments. But there is

one other aspect of Roman surgical tools that is exceptional within the whole field of Roman artefact technology: not only are the tools usually precision-made to the highest level of craftsmanship, but they appear sometimes to have been used as vehicles for the ostentatious display of innovative design and ingenious features. Examples include, most famously, the elaborate screw-thread mechanism of the trivalve and quadrivalve vaginal specula (Fig.10)[57], but also the two needle syringes (paracentesis needles) in the Montbellet cataract kit[58], an enigmatic triple-bladed scalpel[59], an ingeniously economic loose-jointed combination bone forceps[60], and, most recently, a splendidly-crafted plunger-operated staphylagra-type forceps[61].

While the technical virtuosity undoubtedly lay in the hands of the Roman *fabri* the stimulus for inventiveness may have come from another source, perhaps from certain of the healers themselves. For it calls to mind not only the great rash of technological innovations that blossomed in Hellenistic Alexandria[62] but, more particularly, the annual medical contests held at Ephesus in the 2nd-3rd centuries AD, at which, in one event, physicians competed to design new medical instruments or adapt existing ones to new usages[63]. What is clear is that surgical instruments still have much to reveal about Greek and Roman medical practitioners and their practises. Increased research and archaeological activity in the last few decades have considerably enhanced our knowledge, but much remains to be learnt, and the steady stream of new discoveries maintains excitement in this fascinating field of study.

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Fig. 1. Roman core *instrumentarium* (portable kit), probably 1st-3rd cent. AD, comprising,from left to right, scalpel handle, smooth-jawed fixation forceps/curette, toothed fixationforceps, sharp hook, needle/probe, ligula, lever/dissector. Provenance unknown. British Museum. (Photo: British Museum).

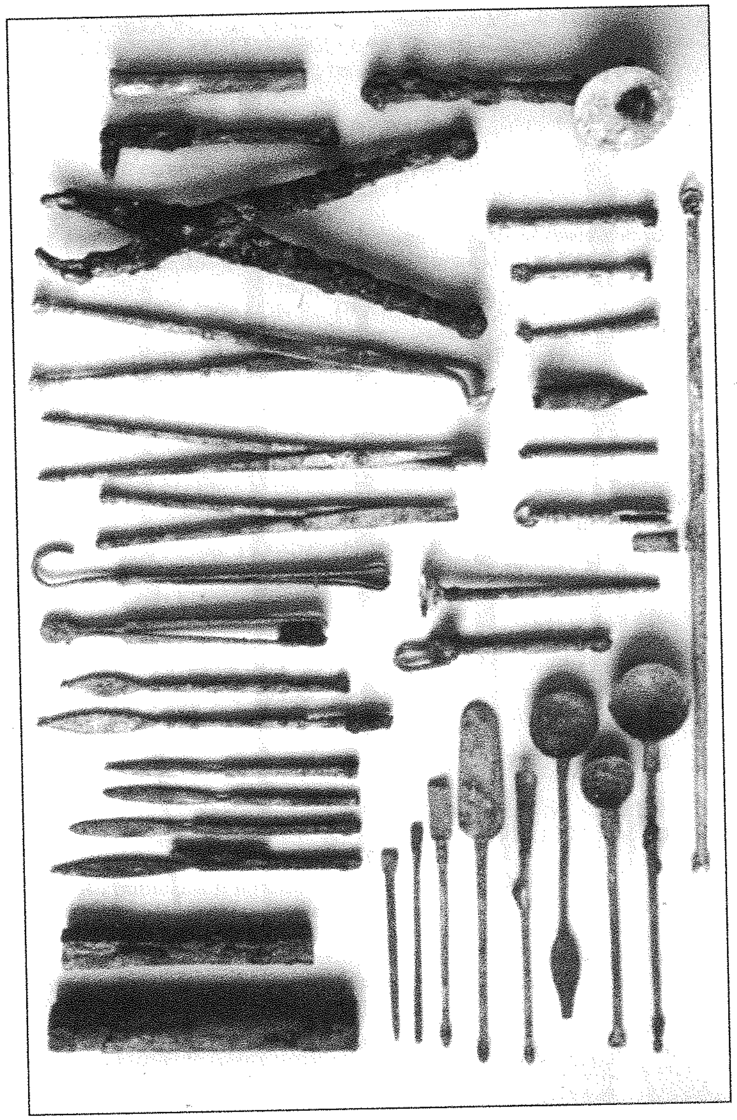

Fig. 2. Large Roman *instrumentarium*, probably late 4th or 5th cent. AD, which includes medicine tubes, scalpels, needles, spring forceps, staphylagra, dental forceps, bone lever, probes, spoons, clyster, cautery, balance beam, and (unillustrated) glass vessels. Believed to be from Asia Minor or Syria. Ashmolean Museum, Oxford. (Photo: R. Jackson).

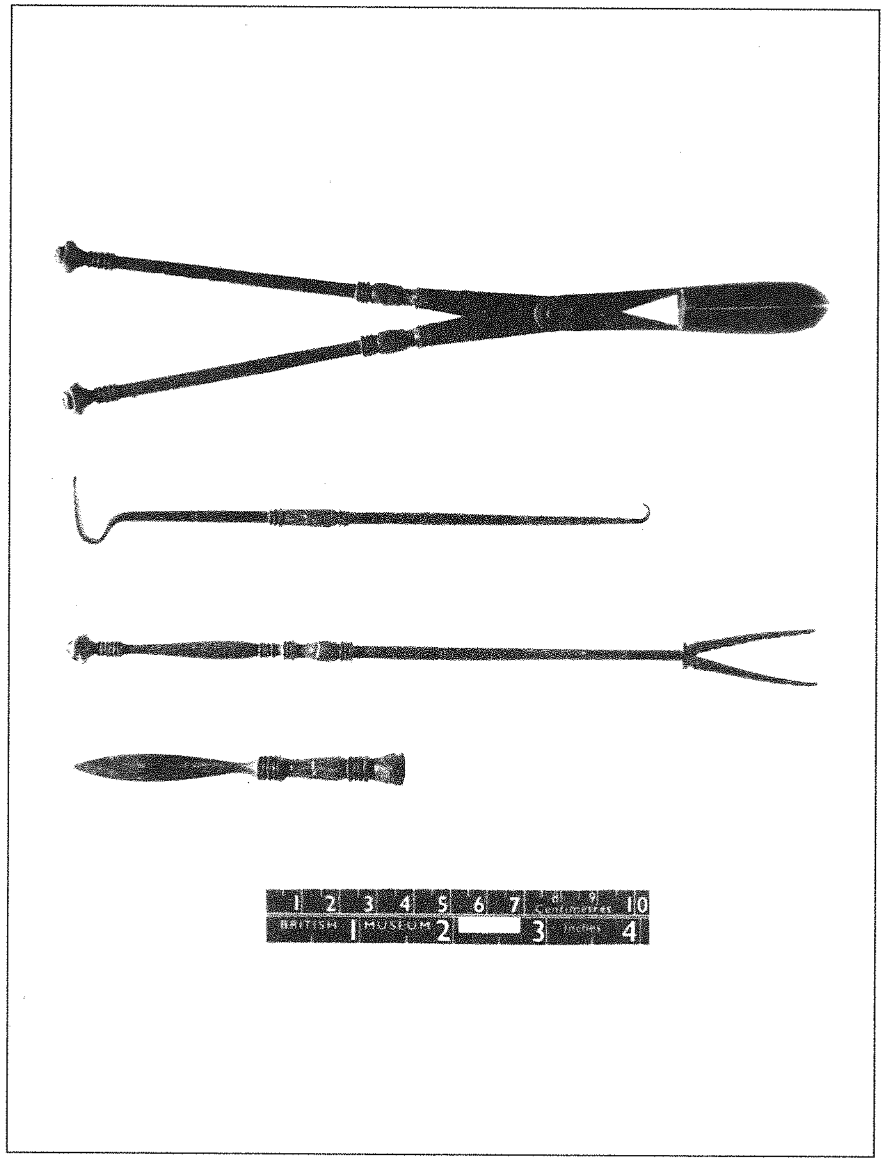

Fig. 3. Roman specialist kit, comprising, from let to right, scalpel handle, bifurcated sharp hook, combined sharp and blunt hook, forceps for applying caustic (*staphylocaustes*). From Italy. City Museum, Bristol. (Photo: British Museum).

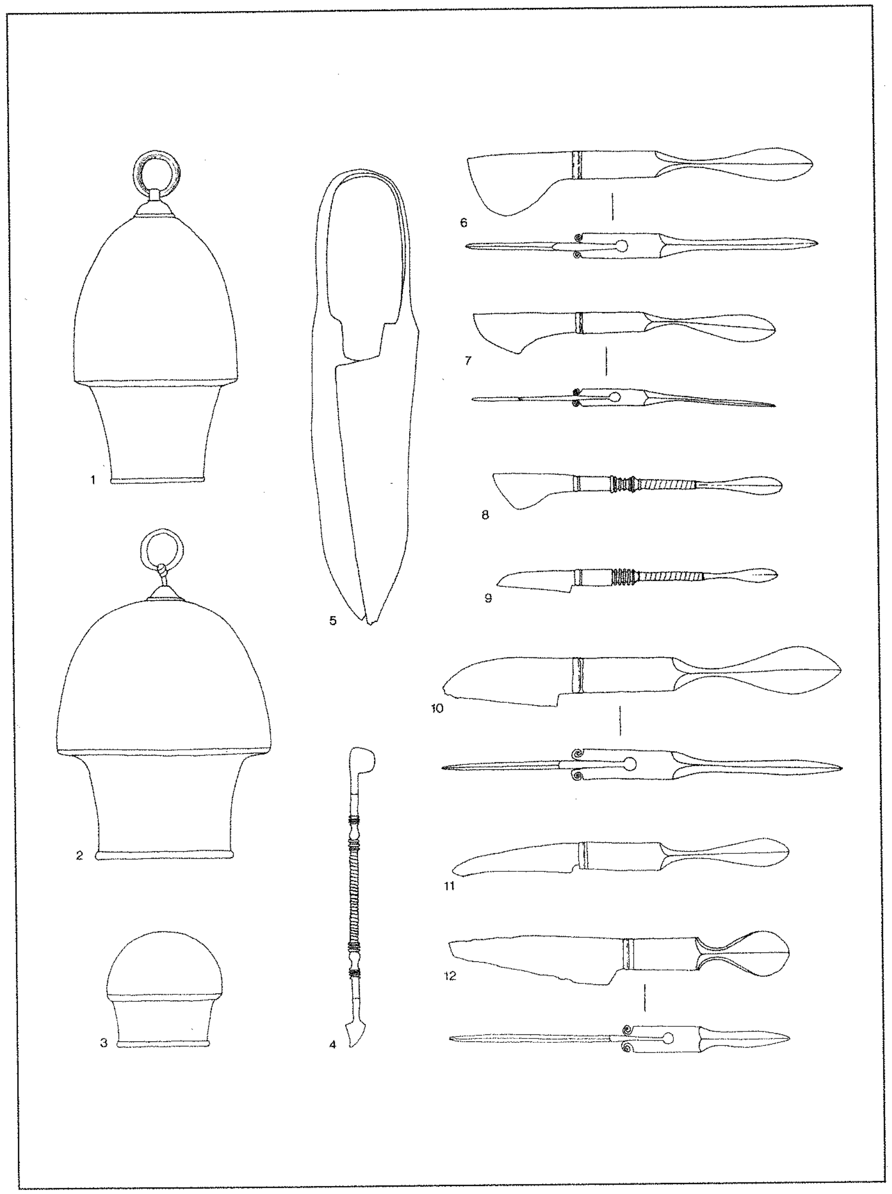

Fig. 4. Cupping vessels, 1-3. Lancet/cautery, 4. Shears, 5. Scalpels, 6-12. (After Jackson 1990).

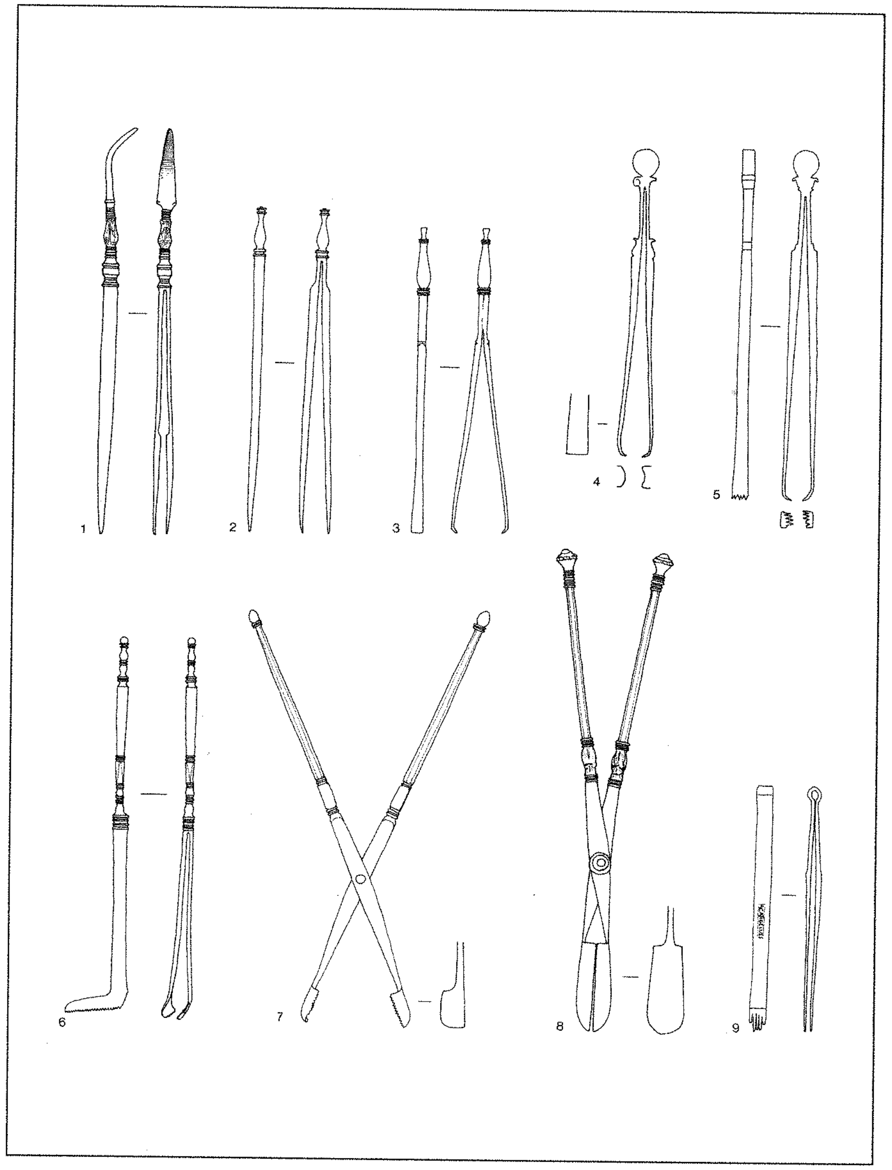

Fig. 5. Spring forceps: pointed-jawed, 1-2; smooth-jawed fixation, 3; single-toothed hoodk, 4; toothed-fixation, 5; toothed fixation, coudÇe, 6; toothed, 9. Cross-legged forceps: *staphylagra*, 7; staphylocaustes, 8. (After Jackson 1990).

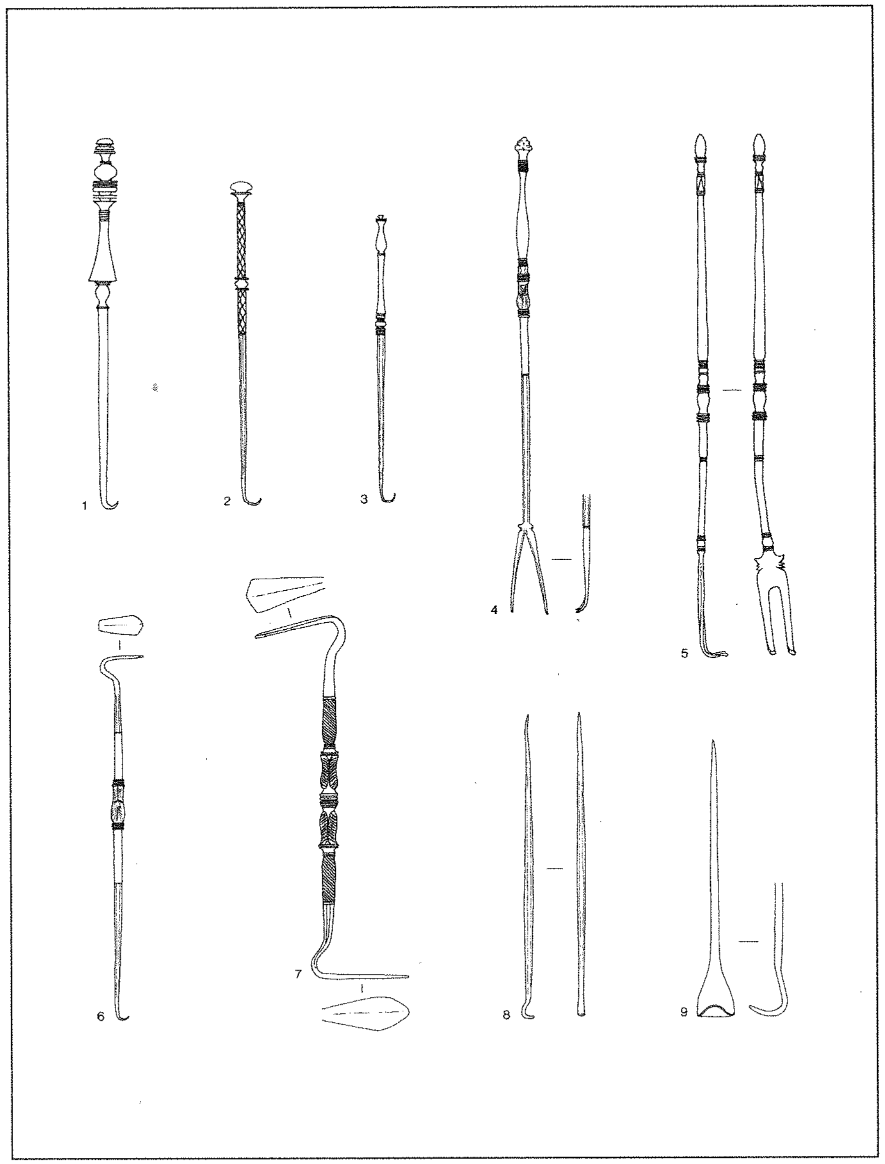

Fig. 6. Sharp hooks, 1-3. Bifurcated sharp hook, 4. Bifurcated blunt hook, 5. Combined blunt/sharp hooks, 6. Double blunt hook, 7. Blunt hooks, 8-9. (After Jackson 1990).

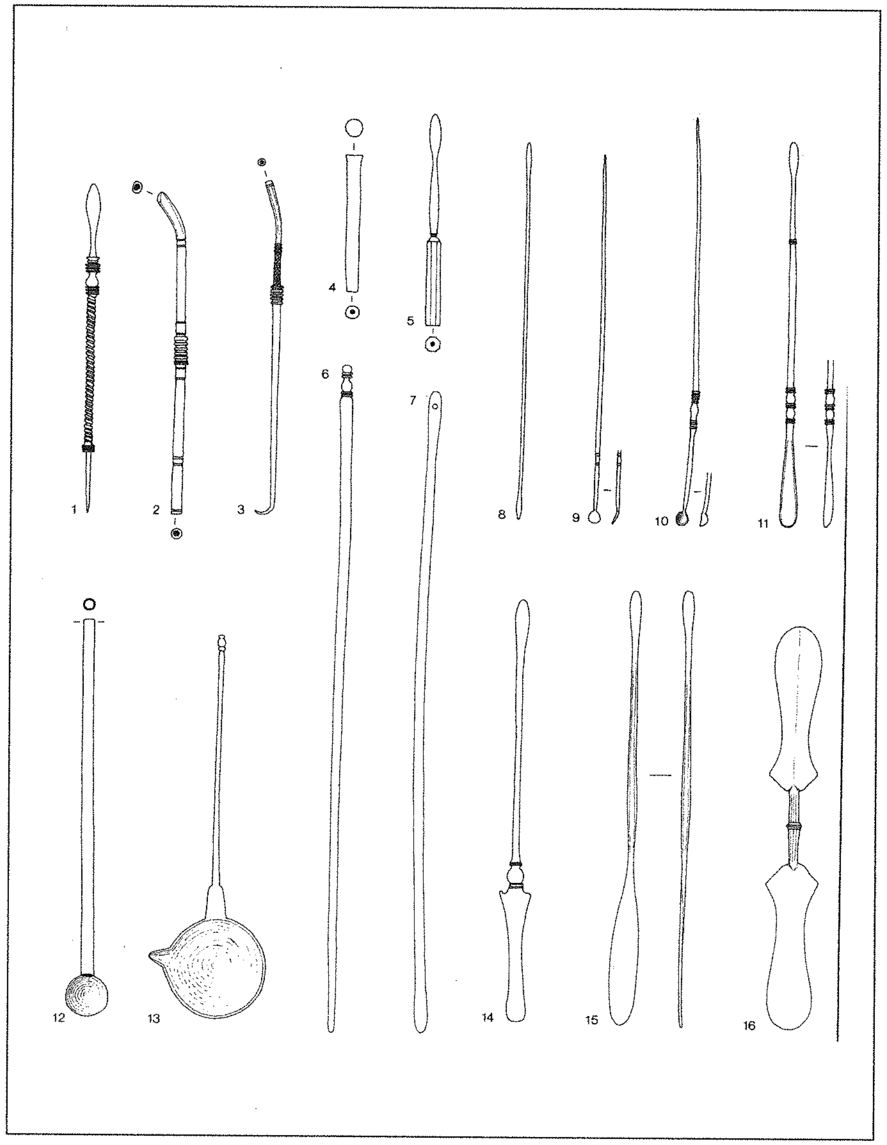

Fig. 7. Cataract needle, 1. Double-ended needle-holder, 2. Combined needle-holder/sharp hook, 3. Needle Handles, 4-5. Simple probe, 6. *Dipyrene*, 7-8. Ligula, 9. Ear probe, 10. *Cyathiscomele*, 11. Insufflator (?), 12. Lipped spoon, 13. *Spathomele*, 14-15. Double spatula, 16. (After Jackson 1990).

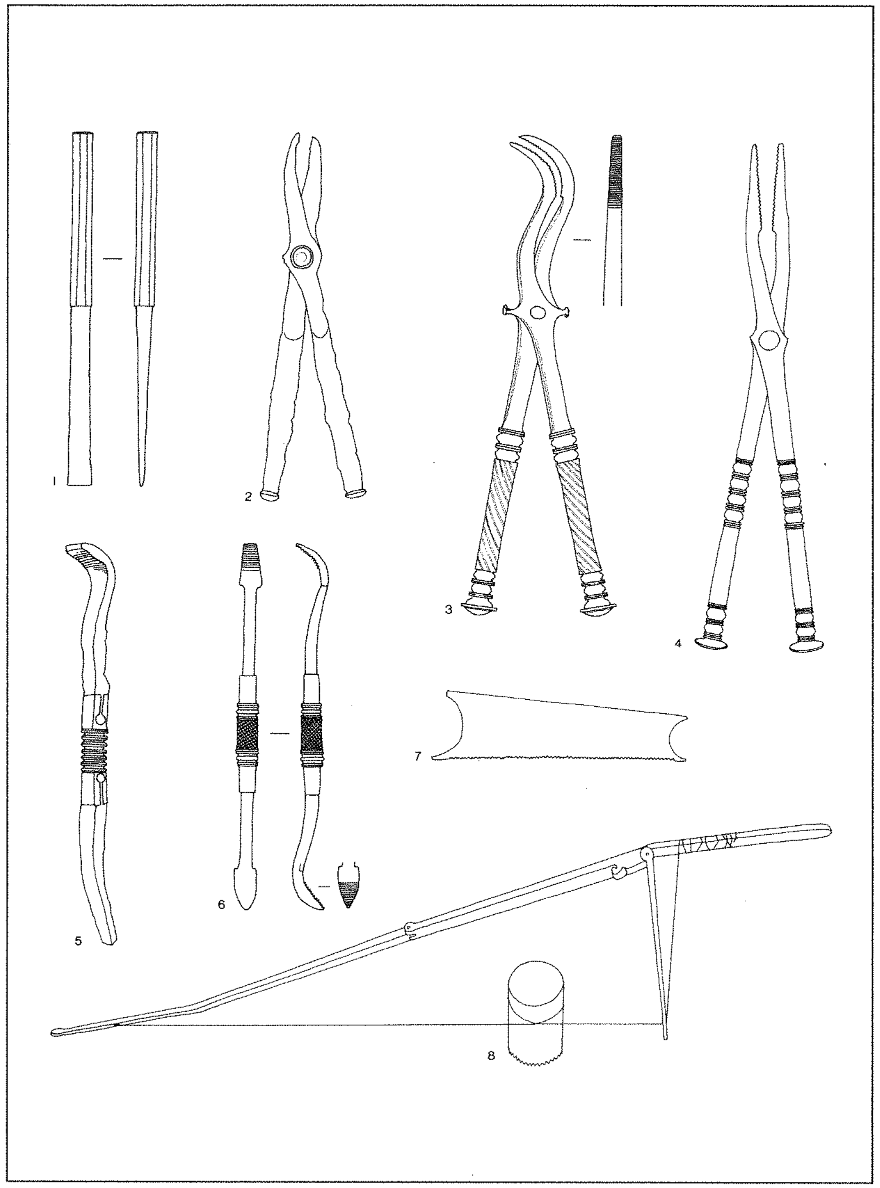

Fig. 8. Bone chisel, 1. Tooth forceps, 2. Bone forceps, 3-4. Double-ended bone lever, 5-6. Saw blade, 7. Crown trephine, 8. (After Jackson 1990).

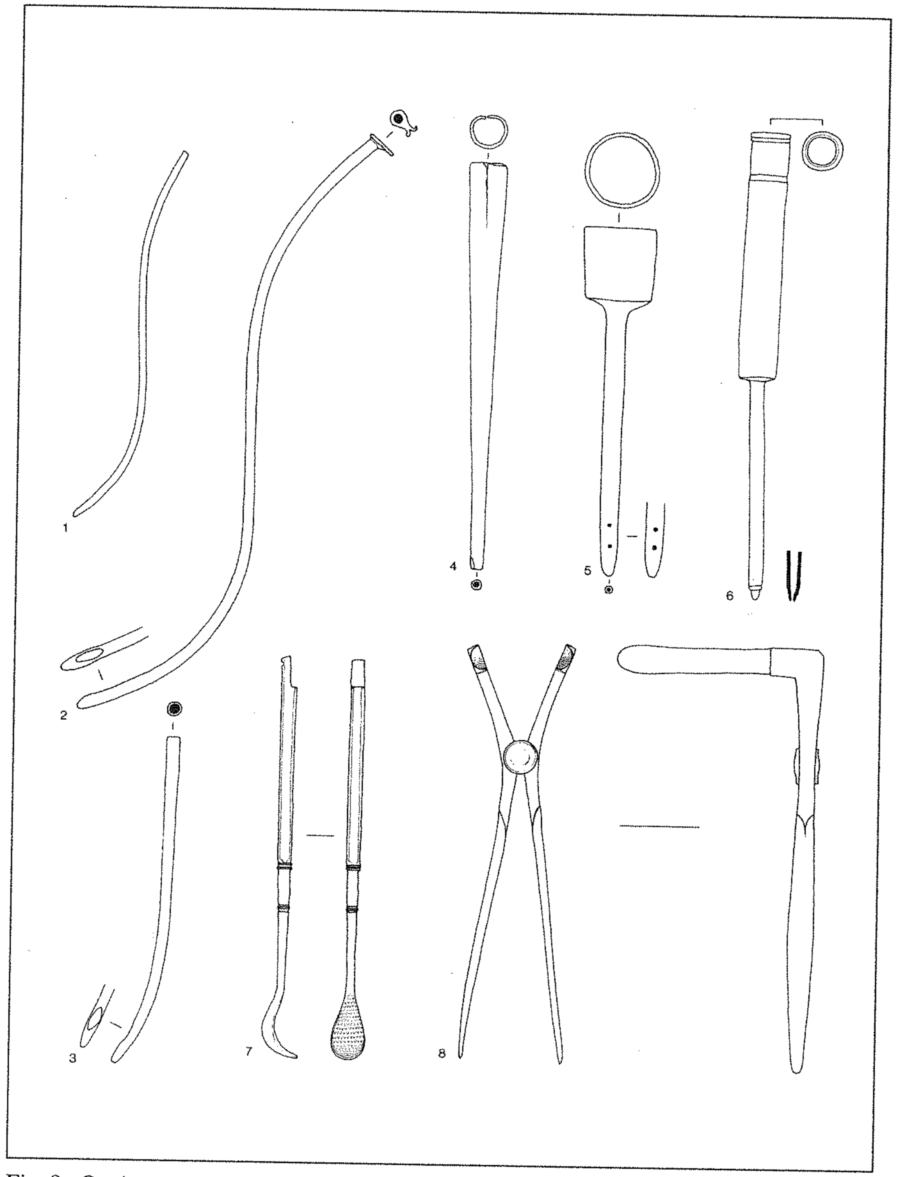

Fig. 9. Genito-urinary and rectal instruments: juvenile male catheter, 1; male catheter, 2; female catheter, 3; tube, 4; clyster, 5; clyster or syringe, 6; lithotomy knife/scoop, 7; rectal speculum (bivalve dilator), 8. (After Jackson 1990).

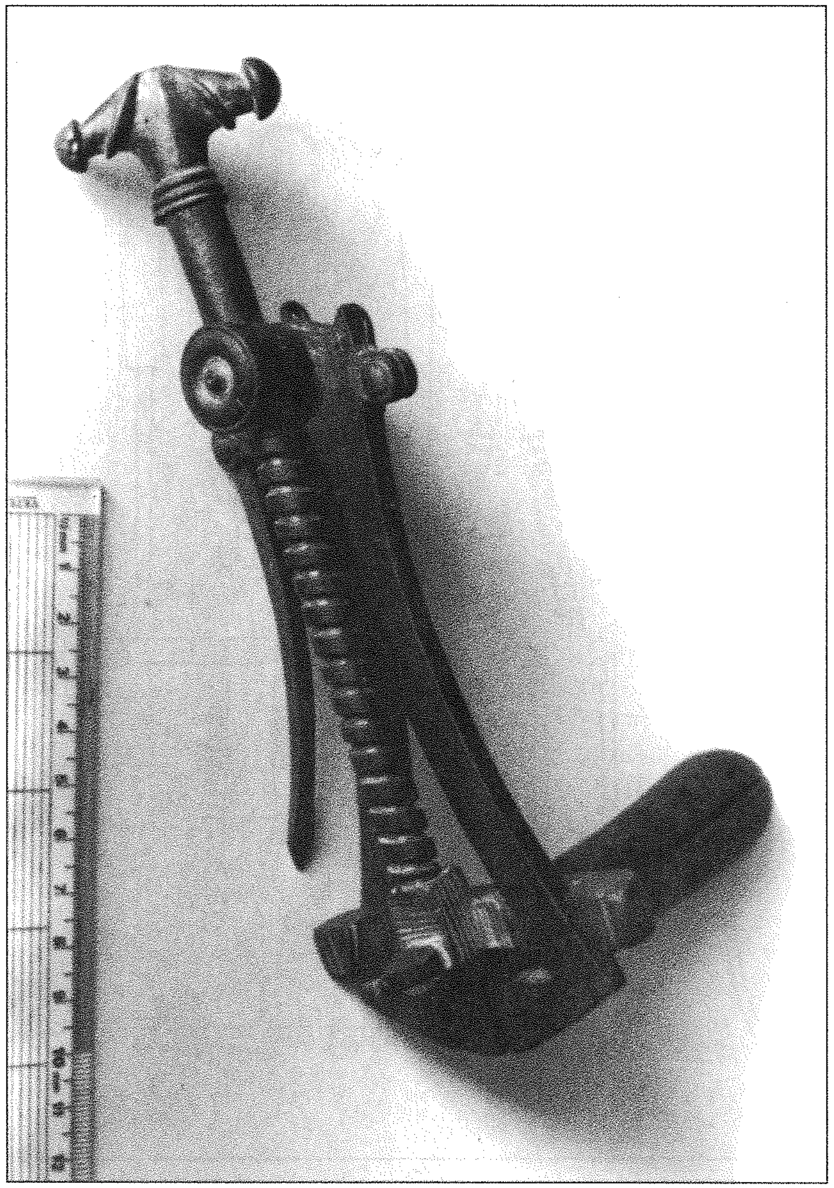

Fig. 10. Roman trivalve vaginal speculum, from Asia Minor. Rîm.-Germ. Zentralmuseum, Mainz. (Photo: R. Jackson).

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Articoli/*Articles*

GALIEN ET LA MAUVAISE MALADE

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SUMMARY

GALEN AND HIS BAD *FEMALE PATIENTS.*

Why is the relationship between Galen and his female patients particularly difficult?

Tout médecin d'aujourd'hui est bien convaincu qu'il existe dans sa clientèle de *bons malades* et de *mauvais malades*, même s'il ne prend pas toujours la peine d'expliciter ces notions. Les premiers veulent guérir, sont dociles et coopératifs, ils aiment leur médecin. Les seconds désobéissent et prennent mal leurs médicaments, surtout s'ils ont mauvais goût ou procurent des effets secondaires désagréables; ils doutent de leur médecin et lui tiennent tête, ils sont ravis de le mettre dans son tort et de le faire entrer en rivalité avec des confrères; souvent même ils le quittent et pratiquent le papillonnage médical.

Galien avait cette double expérience; il considérait qu'il n'y a pire malade que le médecin malade; dans le *De sanitate tuenda*, il s'en explique:

> *Un certain nombre de ceux qui écrivent des préceptes d'hygiène, ou qui, sans écrire là-dessus, donnent au moins des conseils, seraient absolument incapables de se préserver eux-mêmes des maladies; et ensuite, lorsqu'on se moque d'eux, en leur disant ceci ou cela, ou en leur expliquant le vers: S'il soigne les autres, le médecin est lui-même couvert de plaies les uns disent que c'est à cause de leur travail ininterrompu, les autres conviennent qu'ils sont malades du fait de leur intempérance. Mais, à mon*

Key words: Galen - Women - Relation patient-physician