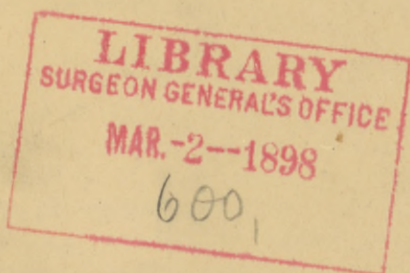


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On the value of antipyrin

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On the
VALUE OF ANTIPYRIN
to the Surgeon.

BY

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During the winter of 1885 my attention was called to an article by someone whose name I do not now remember, stating that he had found a solution of antipyrin to be an efficient hemostatic in the treatment of urethral hemorrhage. This statement was made to me by a visitor at one of my clinics at a time when I was in need of something that might act in this way. Accordingly, I at once made a 4 per cent. solution, tested it for this purpose, and found it very satisfactory. This was my first introduction to antipyrin as a hemostatic. Charmed with the result thus produced, I at once began experimenting with it in a variety of surgical cases. Having learned, in one way and another, that it was a most efficient and practically harmless styptic, I desired to ascertain whether it was one that could be safely used inside of the body-cavities, and whether it had any antiseptic properties. I tested it carefully in my own laboratory, and learned, by repeated experiments, that while not a strong antiseptic it, nevertheless, had marked antiseptic properties, holding its own fairly well with many of the other synthetic productions that have of late been so freely placed upon the market for this purpose. It compares, indeed, very favorably in this respect with

most of the anilin or coal-tar derivatives that we use in medicine. I then began experimenting upon animals, or, rather, using the drug during various experiments, employing for this purpose a 4 per cent. or 5 per cent. solution in sterilized water. I soon learned that this could be used anywhere upon the peritoneum, upon the bowel, upon the brain-surface, or anywhere else, invariably exhibiting its styptic properties and causing no symptoms that lead me to regret its use. Thus fortified, I began its general use in aseptic surgery. Now I keep a standard solution in my clinic, where I always have fifteen or twenty pounds of air-pressure ready to be used for spraying, and small hand-sprays, which, with this air-pressure, are conveniently at hand for any emergency. I have never hesitated to spray a 5 per cent. solution on an exposed and oozing surface, whether this were on the cortex of the brain, in the nose or mouth, in the peritoneal cavity, upon injured liver or bowel, or anywhere else.

I have found that antipyrin has power not sufficient to contract vessels of any size that spurt, but to almost instantly blanch and check oozing from any surface from which blood is escaping just fast enough to be an annoyance. I have hundreds of times demonstrated this efficiency in my clinic and at various times, when visiting other operators, have been able to make the same demonstrations for them. As a consequence, a number of my surgical friends are now using this remedy for this purpose. It may be injected into a cavity, as in bone; it may be applied on compresses to the oozing surface, or it may be sprayed as mentioned; but no matter how applied, under circumstances indicated within the limits given, it will seldom, if ever, be found to disappoint.

I think it essential to say that I have thus tested it bacteriologically, because some might otherwise hesitate to use it. My own preference for operating this is, whenever possible, by the dry method, and in many cases, unless something is positively indicated, I let nothing come in contact with the fresh wound-surfaces—neither antiseptic solution nor anything save sterilized compresses. Upon such a surface, however, if necessary I would not hesitate to employ a sterilized solution of antipyrin, believing that it is sufficiently antiseptic to be left without feeling that one must remove every particle of the solution. Moreover, it is practically unirritating, since I have never known harm to occur

from its entrance into any part of the body where it was not called for. I should have no fear, for instance, if a little of the solution trickled down into the peritoneal cavity after it had been applied to the surface.

Antipyrin has this great advantage over such styptics as the salts of iron, in that it constricts the minute vessels and does not leave any external clot in the way, or that may break down, or that in any sense shall be undesirable, as are the clots, for instance, made by Monsell's solution. In cases of epistaxis, for example, a solution of antipyrin may be sprayed into the nose with the greatest benefit. It will serve a most admirable purpose after intranasal operations, as I have many times convinced myself. In the urethra, as after internal urethrotomy, it will have the same beneficial effect. In certain operations on the mouth I have had patients occasionally gargle a weak solution, or have inserted tampons saturated with a solution of antipyrin to which a little glycerin has been added. Up to the present I never have known any unpleasant result from its use in any part of the body in solutions not exceeding 5 per cent. for the purposes stated. Sometimes, in fact, I have used solutions as strong as 10 per cent.

This leads me to speak of certain other purposes for which a 4 per cent. or a 5 per cent. solution of antipyrin may be locally used. In 1888 I mentioned to my friend Professor Hinkel, of this city, the relief that I had found antipyrin to afford in certain cases of inflammatory occlusion of the nose, as well as its hemostatic virtues. He began using it, was much pleased with its effects, and wrote an elaborate article entitled "Clinical Notes Upon the Use of Antipyrin in the Nasal Passages," which was published in the *New York Medical Journal* for October 28, 1888. I speak of this particularly, because quite recently I have seen an article, emanating from New York, claiming originality for this discovery, the author apparently being quite unmindful of the article published by Dr. Hinkel some years previously.

When antipyrin is to be used for any medicinal purpose necessitated by affections of the head, as, for instance, headache, coryza, etc., there is no way by which its effects are so speedily gained with so little disturbance and so little danger, as by spraying it into the nose. It must be acknowledged that these solutions give rise to some temporary smarting and irritation of

the mucous membranes, and my custom is first to spray in a weak solution of cocain and to follow it in a few minutes with the antipyrin. At other times the two may be combined. The effect of the cocain is not merely to anesthetize the surface, but to constrict the vessels, this effect, however, quickly passing away. The effect of the antipyrin seems to be to carry out to a much more marked degree the conditions thus produced by the cocain, the constricting of the tissues lasting sometimes for several hours, which would not be the case when cocain alone is used. For "that stuffy feeling" of which many patients speak, complaining of a catarrhal condition of the upper air-passages, accompanied by a certain amount of discomfort or actual pain in the anterior part of the head, there is nothing in my experience that begins to afford so speedy relief. For my own part, if I ever have to resort to antipyrin to gain relief from headache, I should prefer to use it locally rather than to take it internally. The quantity required is much less, which of itself is an important item, while the effect produced is manifested very much more quickly. The same is true also of certain acute affections of the throat; and the discomfort attending an ordinary attack of pharyngitis, with the soreness radiating into the neck and head, can be more quickly relieved by this spray than by any other measure that I know of. Of course, I do not mean to imply that this solution will be all sufficient. Other and more general measures are called for at the same time; but I maintain from a quite extensive experience with the drug that it will give early relief more satisfactorily than anything else of which I have knowledge.

Undoubtedly, the effects, their styptic or analgesic, that I have eulogized are due to the same constricting effect upon the tissues of the body. Antipyrin in its local effects is generally astringent, but that it has these properties comparatively few are yet aware, and this therapeutic note is written with the view of enabling others to take advantage of a very valuable fact.

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