

of St. Vincent's Hospital, New York, has cited a good example.<sup>a</sup>

I. R., a foundling, of eight months, seen on December 8th, 1901, with enlarged cervical glands, nasal discharge, and mouth-breathing. On January 25th, 1902, adenoids were removed. February 14th, cervical glands were enlarged, and in front of R. sternomastoid there appeared a small, soft, compressible swelling, with a slight induration in the right pharyngeal wall. A diagnosis of retropharyngeal adenitis and possibly abscess was made, but there was no evidence of pus, and the temperature had never reached 100° F. March 5th, swelling was larger, and the head was thrown back. March 6th, tumour still larger, fluctuating, temperature 103.8°; infant could not swallow. The child was in a state of considerable marasmus. Abscess was opened and 1½ ounces of pus evacuated, no disease of vertebræ being found. March 7th, temperature was 98° F., the throat was clean, and tumour had disappeared. Child recovered rapidly, and by October 5th he was in perfect health.

The case is cited because of the extreme marasmus and the chronic course.

---

ART. XVI.—*Further Work on the Chemistry of Viola Odorata.*<sup>b</sup>

By H. WIPPELL GADD, F.C.S.

IN a communication which I read before the Therapeutical Society in December, 1905, some experiments were described which, although they had failed to isolate a glucoside, provided strong evidence of the presence of one, and it was presumed that this was the viola-quercitrin described by Professor Mandelin as having the formula  $C_{42}H_{42}O_{24}$ . It has since, however, been pointed out to me by Mr. A. G. Perkin, of the University of Leeds, that Mandelin's formula is incorrect, and that the correct formula for viola-quercitrin is  $C_{27}H_{28}O_{16}$ . Mr. Perkin found this glucoside in the flowers of the Viola

<sup>a</sup> Cf. Archives of Pediatrics. April, 1903. P. 279.

<sup>b</sup> Read before the Therapeutical Society on October 30, 1906.

odorata, but in smaller amount than in those of the *Viola tricolor*.

At my request he has very kindly made some dyeing experiment with an extract which I prepared from the leaves of the *Viola odorata*, which was calculated, from its yield of glucose, to contain about five per cent. of viola-quercitrin ( $C_{27}H_{28}O_{16}$ ). Pieces of cloth were mordanted respectively with aluminium, chromium, tin and iron, and were then divided into two portions. One portion of each was treated with 2 cc. of a liquid extract of violet leaves, this quantity being equal theoretically to 0.1 per cent. of viola-quercitrin. The other portions were treated with a solution containing 0.05 gramme of viola-quercitrin, obtained from eucalyptus.

On comparing the results it was found that those treated with the violet extract could hardly be seen to be dyed at all, whereas those treated with the solution of viola-quercitrin from eucalyptus were coloured deeply. It was therefore evident that there was a mere trace, if any, of viola-quercitrin present. All attempts to isolate and identify a glucoside from the violet leaves have failed, and no other principle has been detected. Attempts to isolate a ferment have also been unsuccessful. The only positive fact resulting from the experiments is that the leaves and their preparations yield, under certain conditions, glucose. Determinations have therefore been made of the amount of glucose yielded, as this is apparently an indirect measure of strength.

Thus I have found that the amount of glucose from the dried leaves is only about half that from the fresh; that the stalks of the leaves yield about five-sixths the amount obtained from the leaves freed from stalks; that the roots yield practically no glucose; that the juice, prepared by expression of the leaves, yields as much glucose as the leaves themselves; that a fresh infusion contains nine-tenths of the glucose that can be obtained from the leaves, and that the leaves can be exhausted by continuous percolation with dilute ethylic alcohol solutions, but that it takes a very large volume of the menstruum to exhaust a comparatively small quantity of leaves.

The following experiments seem to show that the yield of glucose from the leaves varies at different times of the year, within only narrow limits :—

Nov., 1905		100 parts by weight of the			
		leaves yielded glucose		5 parts by weight	
Nov. 16, 1905	100	„	„	4.7	„
Nov. 27, 1905	100	„	„	4.1	„
Dec. 6, 1905	100	„	„	4.8	„
April 20, 1906	100	„	„	5	„
June 7, 1906	100	„	„	4.7	„

Although the results of the work on the chemistry of the leaves are inconclusive and unsatisfactory, a number of physicians have found preparations of violet leaves to be active. The best form in which to present the drug is in a fresh infusion, the only objections to which are the large dose necessary to be taken and the difficulty of getting a supply of fresh leaves all the year round. Failing this, a solution may be prepared by exhaustion with alcohol, and subsequent removal of the greater part of the spirit. I described the method of making such a preparation fully in my former paper. Some objection has been taken to the amount of alcohol in it, but up to the present I have been unable to substitute any other preservative which is satisfactory.

Dr. Potts has kindly made some biological and clinical experiments with a non-alcoholic solution which I prepared for him, the results of which, I understand, he is to lay before this Society.

#### MEDICAL CYLLIN.

THE Jeyes' Sanitary Compounds Company call our attention to the fact that they have succeeded in raising the carbolic coefficient of their medical cyllin to that of perchloride of mercury—viz., 20.0 when tested against a vigorous culture of *B. typhosus*. This is a very satisfactory result, when we remember that this preparation is guaranteed to be at least ten times less toxic than carbolic acid.