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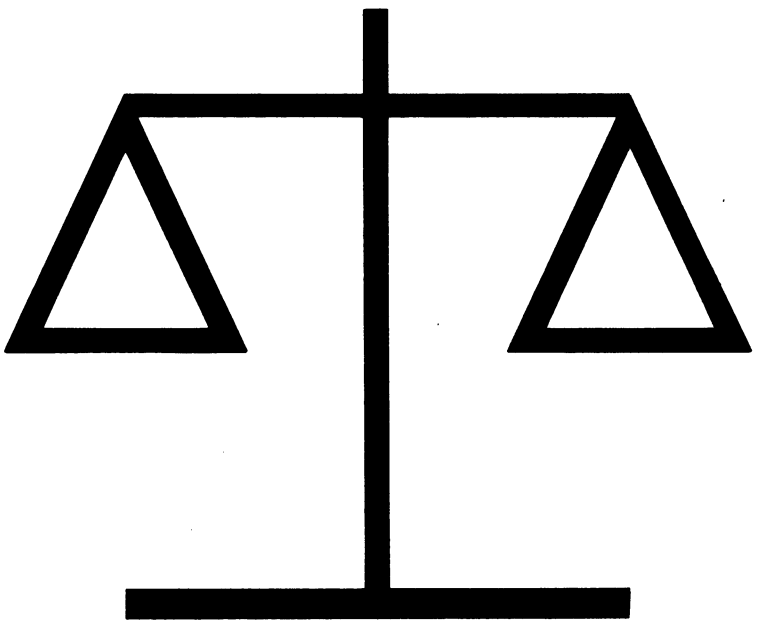
# the second generation



Johnson

# The evolution of elemental diets

In the past few years a new area of clinical nutrition has been developed — the elemental diets. These diets are special nutritionally complete formulations containing protein in elemental form with other nutrients in simple, readily digestible forms.

Elemental diets of this nature are almost totally absorbed in the small intestine, leaving very little residue to reach the large bowel.

An elemental diet should contain;

Predigested protein
Fat in simple form
Carbohydrate as sugars
Electrolytes
Minerals
Essential vitamins

# Patients who would benefit from an elemental diet

### Patients with impaired digestion or absorption

Enteritis
Subacute or chronic pancreatitis
Short bowel syndrome
Crohn's disease
Biliary fistula
Cystic fibrosis

### Patients requiring low residue diets

Pre or postoperative patients
Ulcerative colitis
Gastrointestinal fistula

# Composition of elemental diets

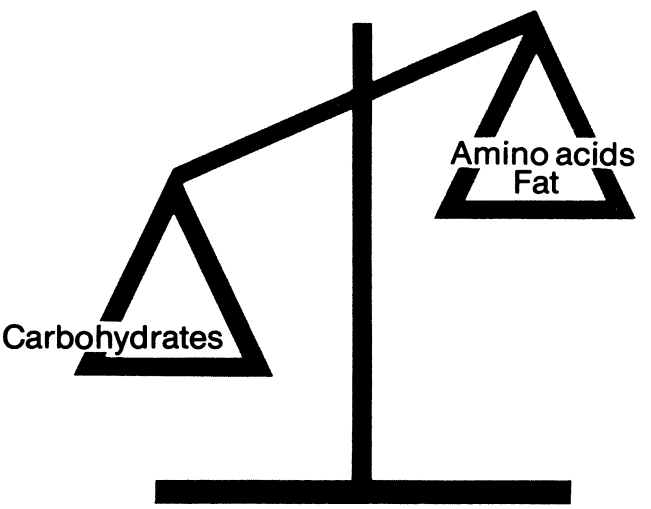
### Earlier elemental diets contain:

Protein as free amino acids only
**Now recent clinical evidence indicates that the presence of peptides is essential for the optimal utilisation of protein.**

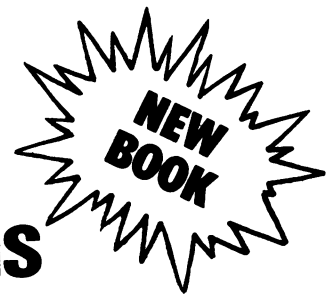
Carbohydrate as glucose
**But earlier elemental diets contain excessive carbohydrate to make up caloric value not supplied by fats.**

**Plus essential vitamins and minerals.**

Fat as linoleic acid
**But earlier elemental diets may not contain enough fat to provide a proper balance of fat and carbohydrate.**




These were the first generation elemental diets.




# Modern Trends

# Gastroenterology 5

## Edited by Alan Read

Professor of Medicine, Department of Medicine, Bristol Royal Infirmary, England.

**A series of pro minent in-depth review articles illustrate significant recent advances in Liver Disease. The team of contributors is comprised of leading international experts in the field.**

**CONTENTS**



## Contributors

**June D. Almeida**
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**H. K. Weinbran**
**Roger Williams**

Modern Trends in Gastroenterology - 5

# GASTRIC SURGERY

Sir Rodney Smith

In the manner of the *Surgical Forum Series*, of which this volume is one, four leading surgeons with similar or overlapping interests in Gastric Surgery, but with views not necessarily in accord, present concise papers on controversial topics in their specialty. Each paper is then critically reviewed by the other contributors. The papers deal respectively with the aetiology of ulceration, selection of operation for, and metabolic consequences of, ulcer surgery, and with cancer of the stomach. From these critical analyses there emerges a concensus upon what is good and a skilful exposure of the weaker points at issue. Thus regarding aetiology there is valuable comment on the proposition that gastric and duodenal ulcer are two separate entities; touching operative procedures it emerges clearly that changing natural patterns of ulcer disease make critical evaluation more difficult; the importance of controlled clinical trials to eliminate both patient selection and observer bias is highlighted; the vital role of preventive medicine is emphasized; and concerning cancer, geographical variations in incidence suggesting environmental and genetic factors and the possible role of host defence mechanisms are closely examined. Above all, from written debate of such a calibre, areas for future research emerge and a high degree of balance and impartiality is ensured. The work should prove invaluable reading for gastro-enterologists, postgraduate surgeons and especially FRCS candidates.

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### Flexical
contains protein as
Peptides in the form of predigested hydrolysed casein, plus three added essential amino acids: methionine, tyrosine and tryptophan for rapid, complete absorption.

### Fats as
MCT oil; medium chain triglycerides 20% and Soy oil 80%.
MCT is absorbed directly into the portal venous system without the need of bile salts or lipase.

### Carbohydrate as
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### Vitamins and minerals
Full adult requirement in one days supply, plus additional Vitamin C and Vitamin B complex.

### Sodium
Only 700 mg in one days supply, the lowest sodium content of any elemental diet, reducing the possibility of fluid retention and oedema.

## A full days supply of Flexical contributes 2,000 kilocalories

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|---|---|---|
| Protein | 9% | 8·5% |
| Fat | 30% | 1·3% |
| Carbohydrate | 61% | 90·2% |
| Total Caloric Availability | 2,000 kilocalories per daily supply | 1,800 kilocalories per daily supply |

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| Flexical | Example of other Elemental diet |
|---|---|

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# the second generation

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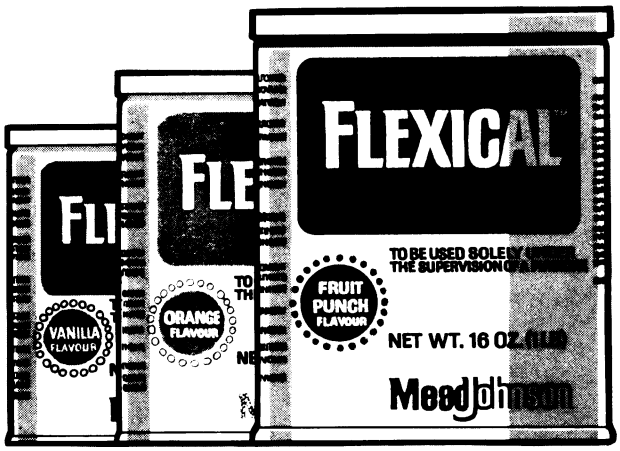


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2

# THE LIQUORICE STORY

## Part 2

The liquorice plant is a leguminous shrub which grows to a height of several feet. It sends down a tap root, and develops a veritable thicket of runners, which may be 25 ft. long, so when the root is dug it is not eradicated, and enough runners remain to carry on propagation and produce another crop several years later.

In its normal habitation the foliage on the stems resemble that of an ash twig, and in colour and texture they more closely resemble small laburnum leaves and are mauve in colour.

However, in Pontefract the plant rarely flowered and only once in the present century were seed pods produced, which showed signs that it was growing beyond its natural limits.

After the root has been lifted, the extract of the liquorice is obtained by shredding or grinding the root in hot water, followed by evaporation of the solution, and both the spent liquorice and the extract are used for several purposes.

The by product of liquorice has been used as the main ingredient in foam fire extinguishers. Another use is in the cultivation of mushrooms, as well as in the making of insulation board.

There are three main uses for the liquorice extract. The first is in the Tobacco Industry, especially in America, where it is used in the production of chewing tobacco as well as in ordinary tobacco.

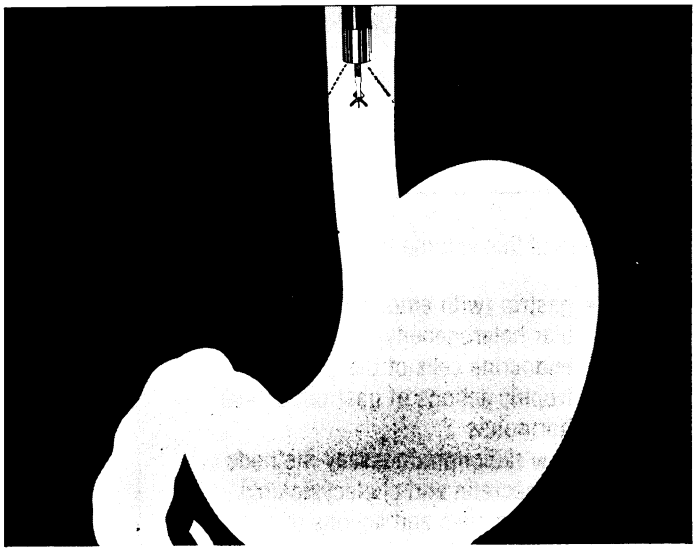
The second and most commonly known use is in the Confectionery Industry, and the third and most important is in pharmaceuticals.

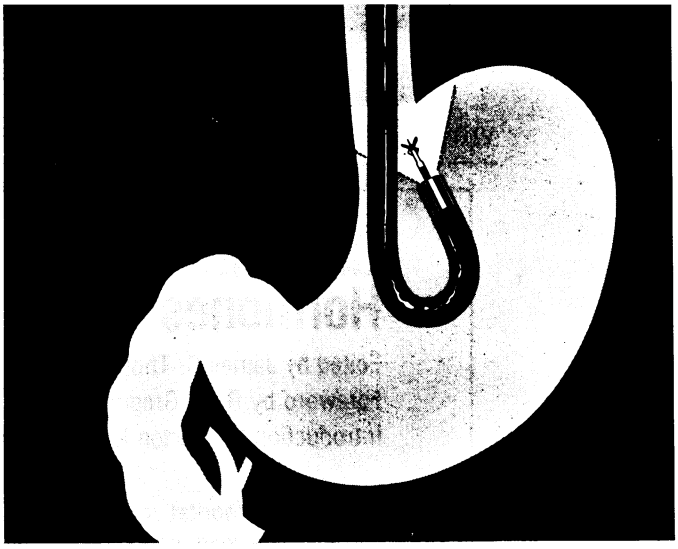
Liquorice has been widely used as a flavouring agent for other drugs. However, over recent years it has been realised that liquorice has a powerful antispasmodic effect on the muscles of the stomach and intestine. There was however, a serious disadvantage which was the constituent glycyrrhizinic acid. This can cause side effects such as oedema (salt and water retention and potassium depletion) as well as other harmful side effects. Cedona Pharmaceuticals in Holland investigated the problem, and developed an exclusive method of extracting the harmful glycyrrhizinic acid, but retaining its ulcer healing properties together with its natural antispasmodic effect. When glycyrrhizinic acid is removed by other methods the spasmolytic effect and healing properties are lost. The main constituent of Caved-(S) is the liquorice, which is processed by the exclusive Cedona method. Therefore, Caved-(S) tablets retain the ulcer healing properties, without the side effects normally associated with liquorice.

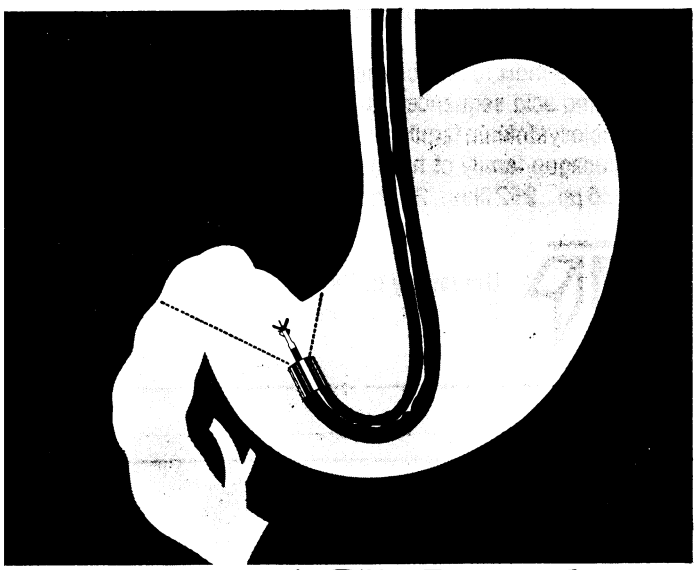
**LIQUORICE ROOT. SAMPLES AVAILABLE ON REQUEST.**

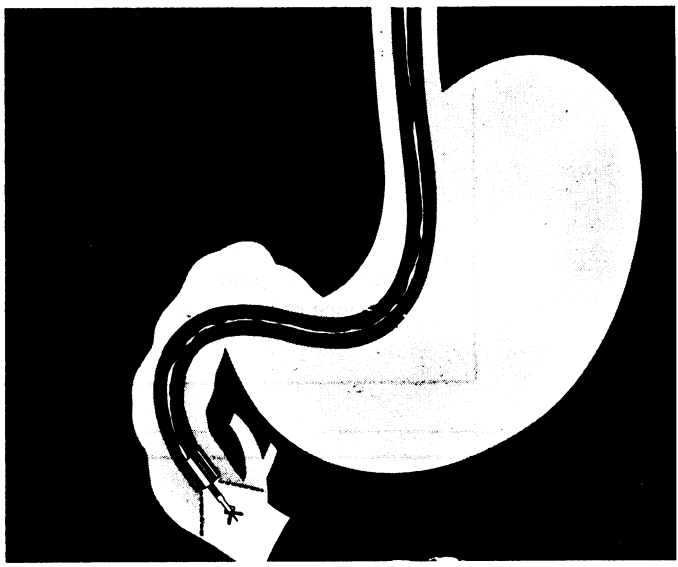
**In the next instalment we will give details of new scientific work carried out on Caved-(S) liquorice, and also details of an exciting project with regard to liquorice in England.**

**From the Information Department, Tillotts Laboratories, U.K. Distributors for Caved-(S) tablets.**









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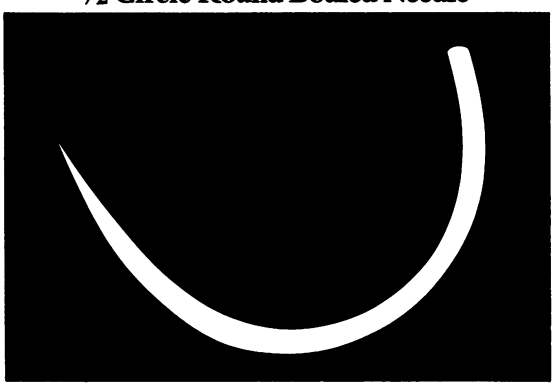
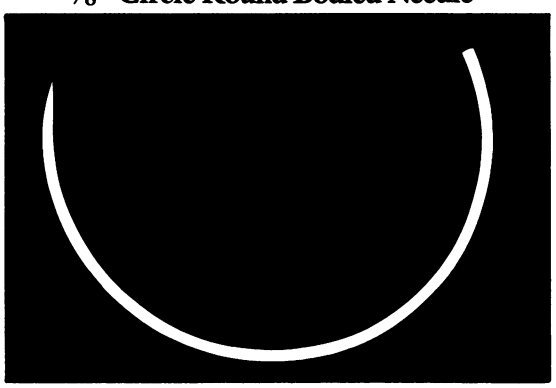


The most popular needle design in use in surgery of the gastro-intestinal tract.

**5/8" Circle Round Bodied Needle**



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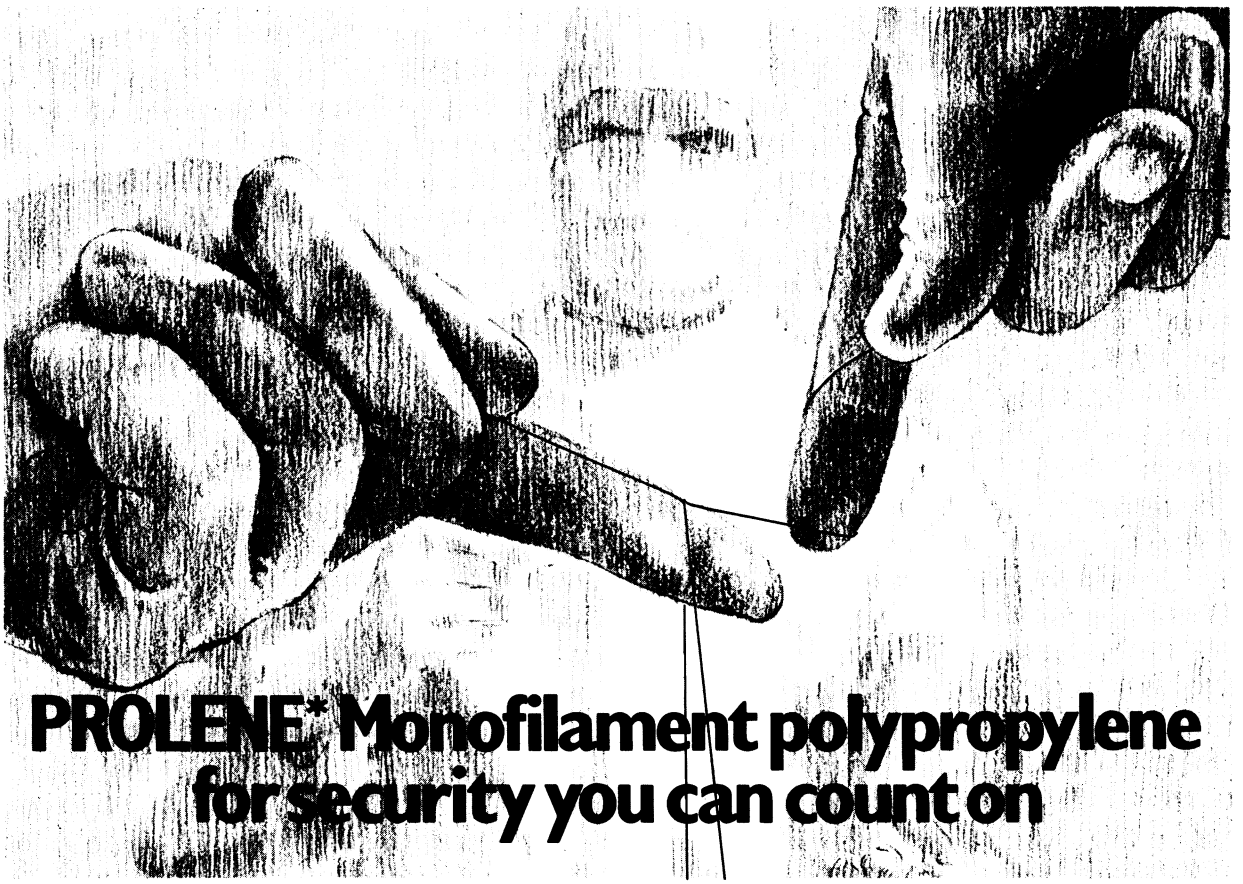

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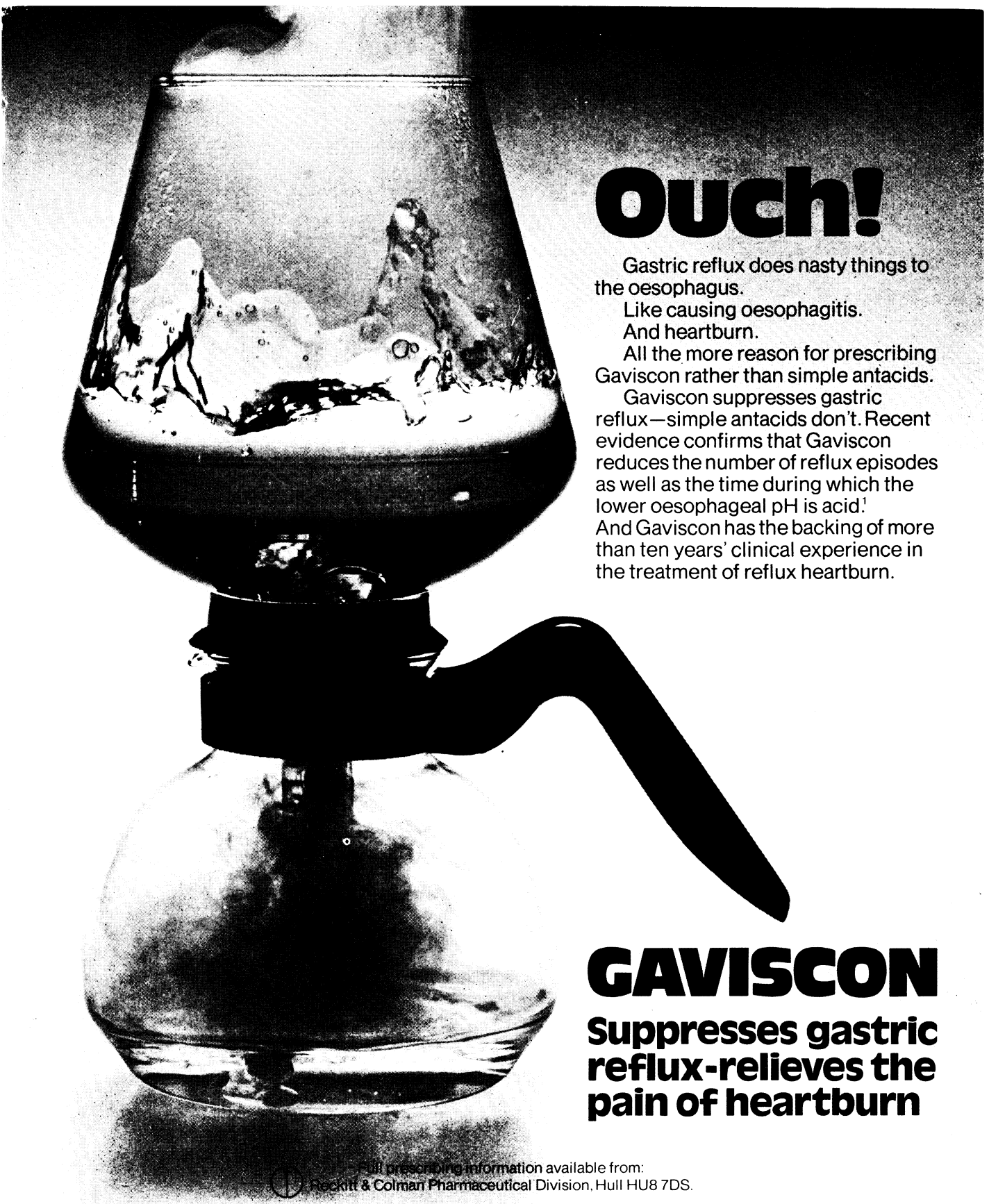

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1. *Lancet* (1974) i, 109.
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