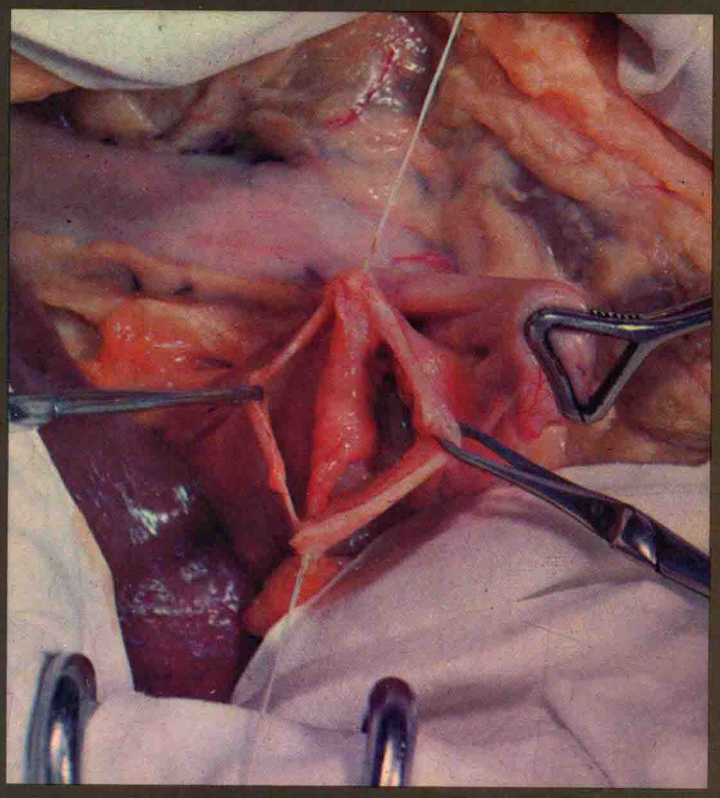
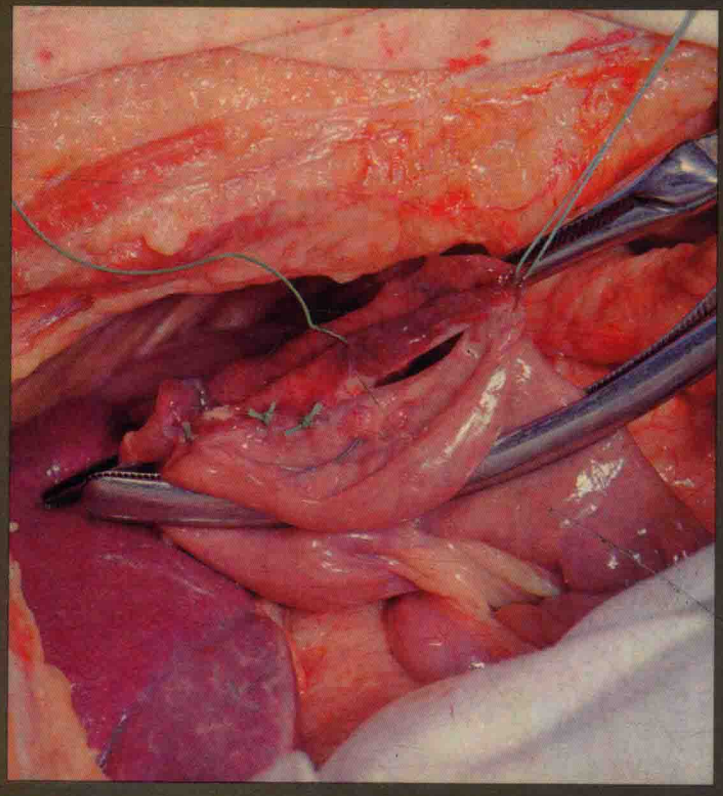
PHILIPPE DÉTRIE

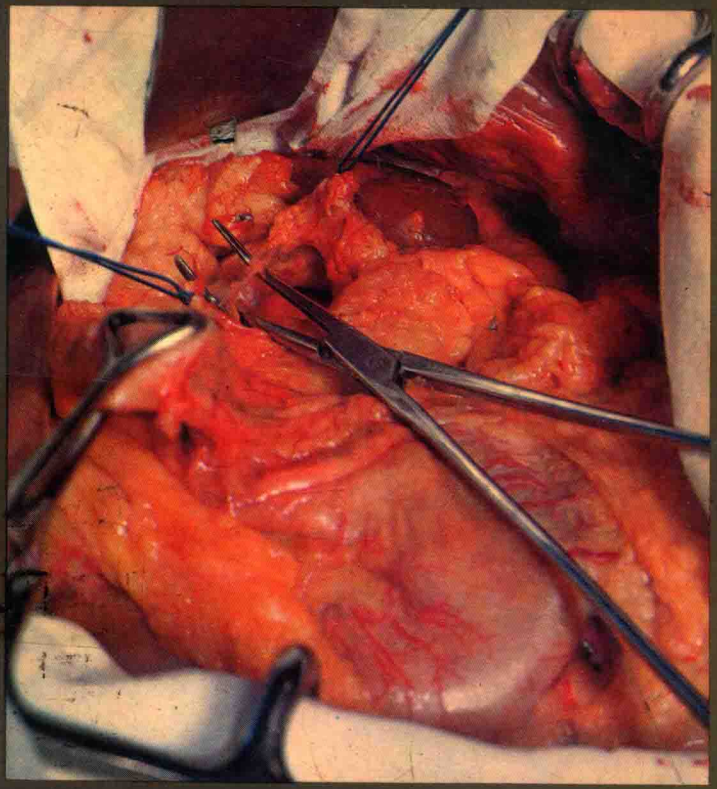
TECHNIQUES IN ABDOMINAL SURGERY

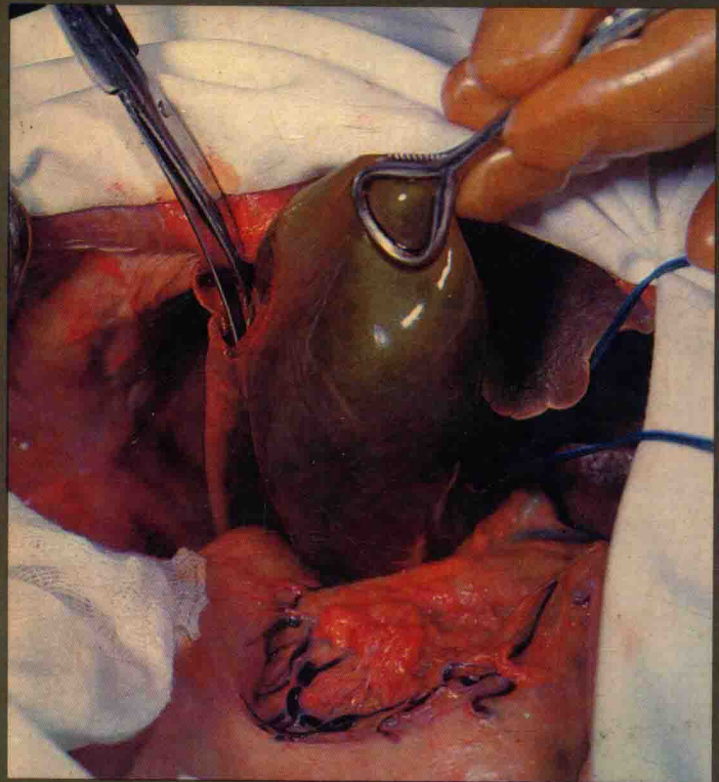
Translated by Richard R. L. Pryer, F.R.C.S.

173 COLOUR PHOTOGRAPHS









HARVEY MILLER & MEDCALF

TECHNIQUES IN ABDOMINAL SURGERY

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With 173 coloured illustrations photographed by

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H M + M PUBLISHERS

Reprinted 1974
ISBN 0 85602 004 4

Manufactured in Great Britain by The Hillingdon Press

TECHNIQUES IN ABDOMINAL SURGERY

INTRODUCTION

Ease of communication has been a traditional privilege of the English-speaking medical professions. As travel has become both faster and cheaper, visits between North American, British and Commonwealth surgeons have resulted in considerable familiarity with each other's methods and working conditions. Where the barriers of language remain, ignorance of our contemporaries in other countries is more widespread, and with greater integration between the nations of Western Europe, the need for mutual appreciation of problems and techniques will increase. In these circumstances, the general availability of Professor Détrie's monograph will be welcome, both as a product of French surgery and as a personal achievement.

The book is essentially an experiment in surgical teaching, and one which deserves the closest appraisal. Arising from the author's pointed criticism of traditional methods of surgical and anatomical representation, a new concept is presented. Concerned solely with operative technique, he makes no attempt to discuss operative indications, preoperative regimes or aftercare, nor to provide a comprehensive guide to all the operations of abdominal surgery. He concentrates upon displaying his personal operative methods by a technique of colour positive photography, accompanied by a brief and dogmatic commentary, characteristic of a practical surgeon. In the manner of our profession, surgeons may agree or disagree with details of operative method, but I believe that all will be impressed by the presentation of the technique, and by the quality of the illustrations.

The author comments that some pictures are less effective than others, notably in large and complex operative fields, but no surgeon will fail to appreciate the incredible detail and accuracy of the majority, and the meticulous way in which the operation area is prepared for each exposure. I was fascinated by the result, and look forward to future extensions of this method of instruction.

I must accept responsibility for some minor liberties with the text, for occasionally Anglicising a French surgical instrument, and for any departures from the spirit or letter of the original. I have also, with some trepidation, allowed myself an occasional comment upon the text, indicating some areas where personal practice differs from the author's methods. In doing so, I am conscious of the fact that, in the highly individual sphere of surgical technique, repeated interruption may be impertinent to the author, and irritating to the reader. We are all part of "la chirurgie eternelle" to which Professor Détrie refers, and to which he has made such an interesting contribution.

Stoke Mandeville Hospital, Aylesbury, 1973 R.R.L.P.

PREFACE

The purpose of this book is to instruct. It results from experience gained in teaching the Interns of my service, and represents, I believe, the minimum of knowledge that must be acquired during their appointment.

In spite of the diversity of surgeons and techniques, certain basic disciplines remain universal. Twenty years ago a gastrectomy was performed as it is today, and it is difficult to believe that it will be different in thirty years time. The left and right gastric vessels will still need to be ligatured and the curvatures mobilised. Details of anastomotic method and suture materials may vary, but one factor does not change: every surgeon learns and develops a personal technique of working movements. It is these which can, at all times, transform operations into controlled, rapid and elegant procedures throughout which gentleness must predominate.

This book contains the fundamentals of operative surgery. No space has been left for methods which may be relegated to the fringe in a few years time. I have concentrated upon traditional teaching, and the skills that must be handed on.

All surgical techniques are represented on paper by abstractions and symbols. In the teaching of operative surgery I have been impressed by the real gap which exists for young surgeons between what they expect to see within an abdomen, and what they find in reality. When asked to identify and ligature an artery, they find themselves dealing with a fatty bundle covered with peritoneum which bears little resemblance to the classical description of a vascular 'pedicle'. They are often surprised to find that the cystic duct is not clearly visible between the gall bladder and the common bile duct.

It could hardly be otherwise, since all books of anatomy or surgical technique contain diagrams in which authors demonstrate perfectly what they know, but not what they have seen.

Cadaveric dissections are of limited value, and we should not therefore be surprised if young surgeons become disorientated when called to work upon living structures. Their training requires a knowledge of organs which they have not seen.

After some study, we have concluded that illustrations of surgical technique should be based on pictures which are not distortions of reality.

The colour photographs have been taken by Madame J. Talamon; without her talent, patience, conscientiousness and fortitude, this book would not have seen the light of day.

PH. DÉTRIE

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CONTENTS

I

ABDOMINAL VAGOTOMY WITH PYLOROPLASTY

The purpose of abdominal vagotomy is the division of the two vagus nerves in their abdominal course, where they are in contact with the oesophagus. It must be accompanied by an operation for gastric drainage.

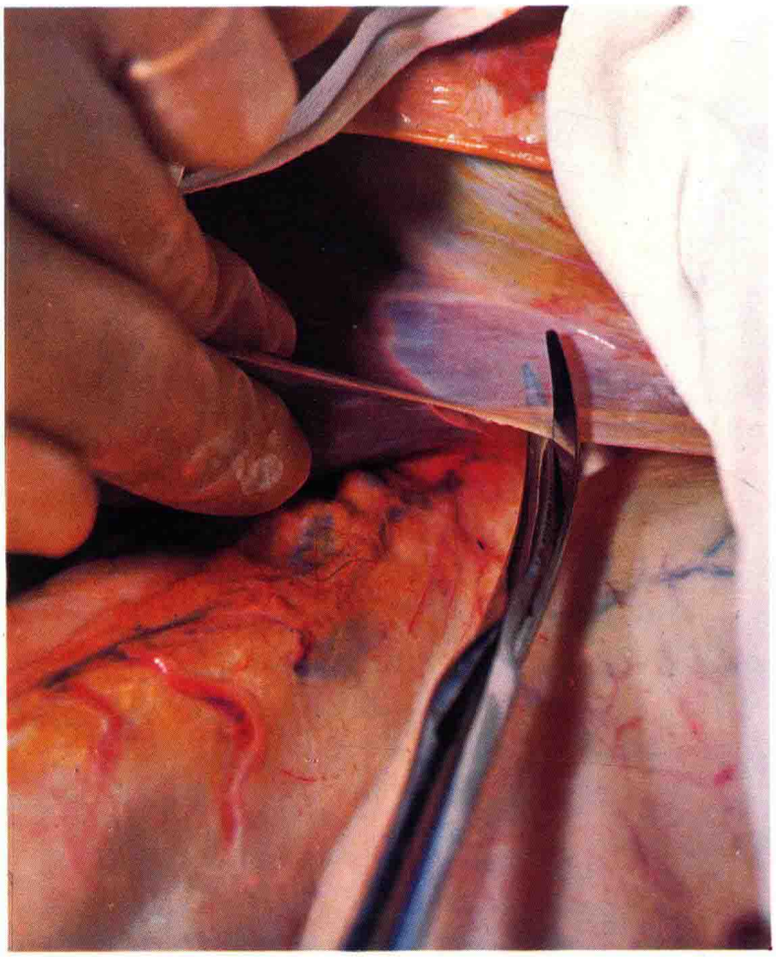
Vagotomy is performed by a midline supra-umbilical incision, enlarged if necessary by removal of the xiphoid cartilage. Two assistants are needed: one to retract the liver, the other to retract upon the left costal margin. A self-retaining retractor holds the edges of the incision apart.

The surgeon stands on the right side. The illustrations have been taken from the right of the patient.

Abdominal Vagotomy

1 *Freeing the left lobe*

Mobilisation of the left lobe of the liver is a useful preliminary to displaying the abdominal oesophagus. It is carried out by holding the lobe close to the diaphragm between the 2nd and 3rd fingers of the left hand. The left triangular ligament is thus stretched and is then divided with scissors held in the right hand. Note that the inferior phrenic vein runs upon the diaphragm close to the base of the ligament. The division of the ligament is carried no further than the right side of the oesophagus, as there is no point in risking damage to the left side of the inferior vena cava.

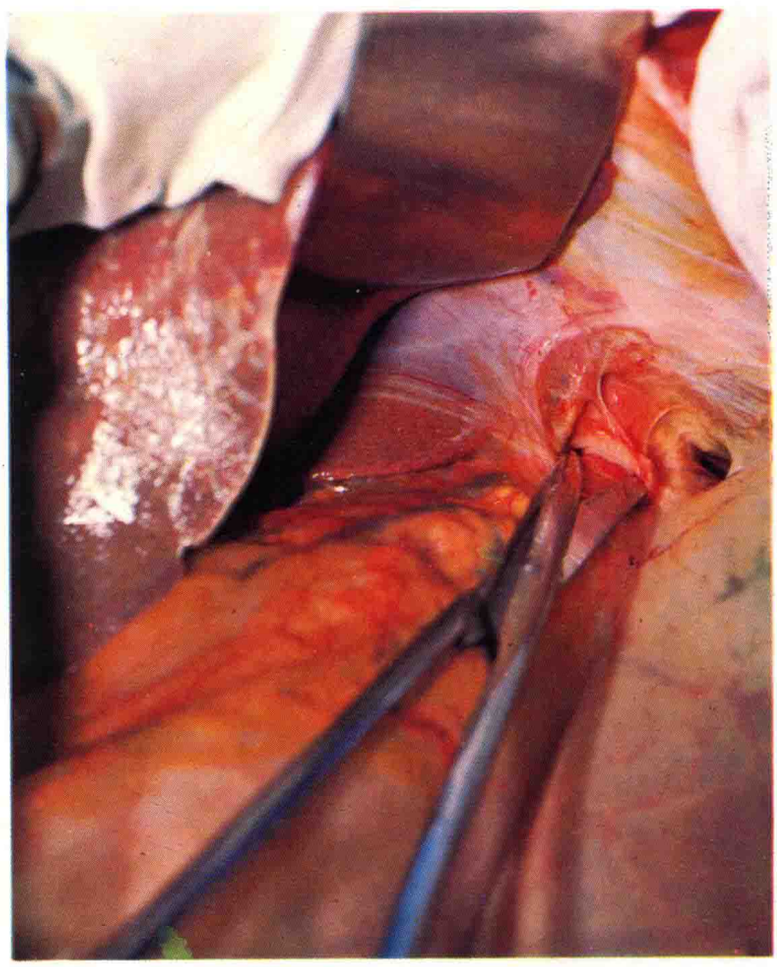


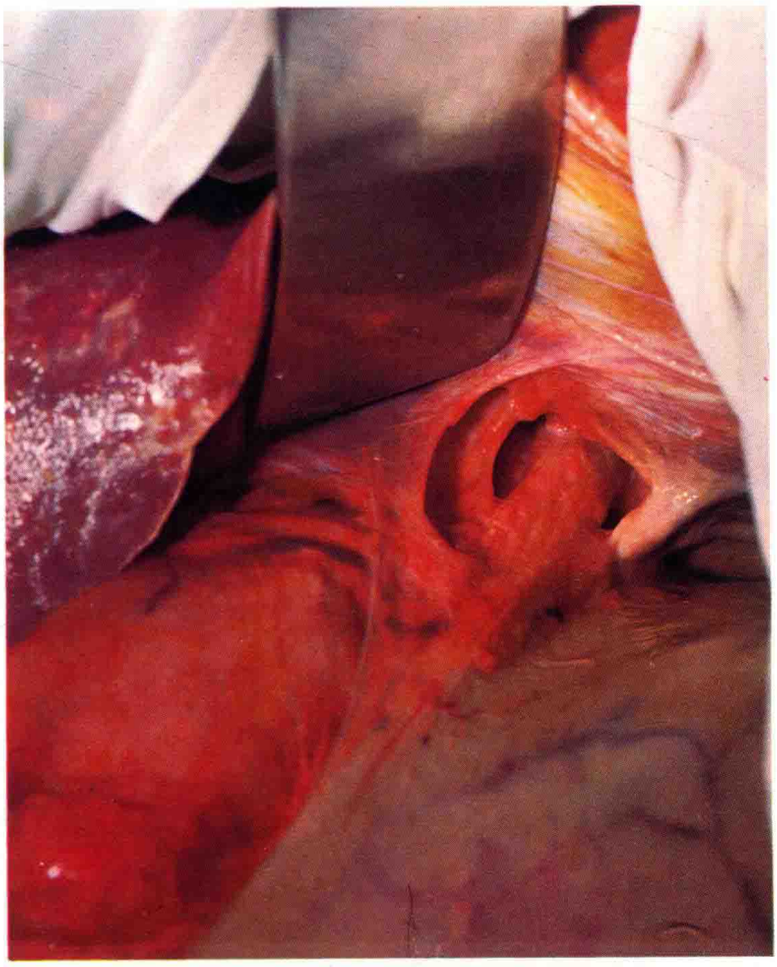
2 *Incising the peritoneum over the oesophagus*

The left lobe of the liver is protected by a pack and retracted while the abdominal oesophagus is exposed.

With the points of a pair of long blunt-pointed scissors, an incision, confined strictly to the peritoneum, is made over the anterior aspect of the oesophagus. To help locate the latter, it is useful to have a gastric tube in position which can be palpated within the lumen.

The points of the scissors are introduced through the peritoneal opening and enlarge this to lay bare the anterior aspect of the oesophagus. Gentle stripping with the right index finger then exposes both sides of the oesophagus.



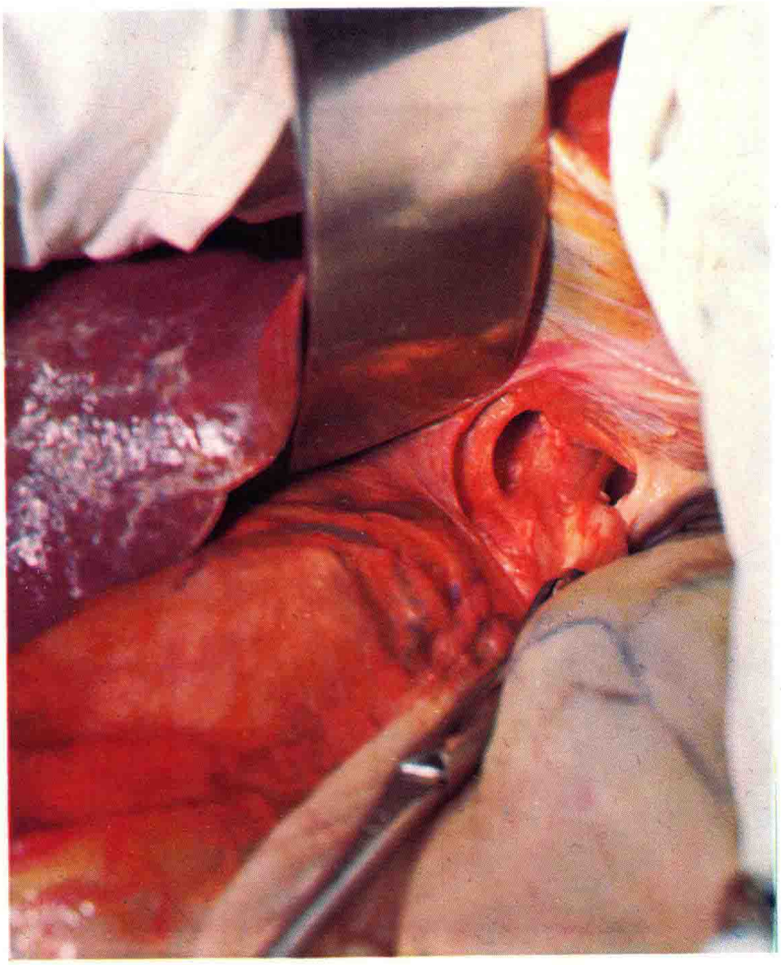


3 *Exposure of the oesophagus*

This photograph shows exactly what the surgeon must see. The oesophageal hiatus is easily visible within the peritoneal opening.

The lesser curvature of the stomach is seen below the oesophagus.

At this point the vagi are neither felt nor seen by the surgeon.



4 *Displaying the left vagus*

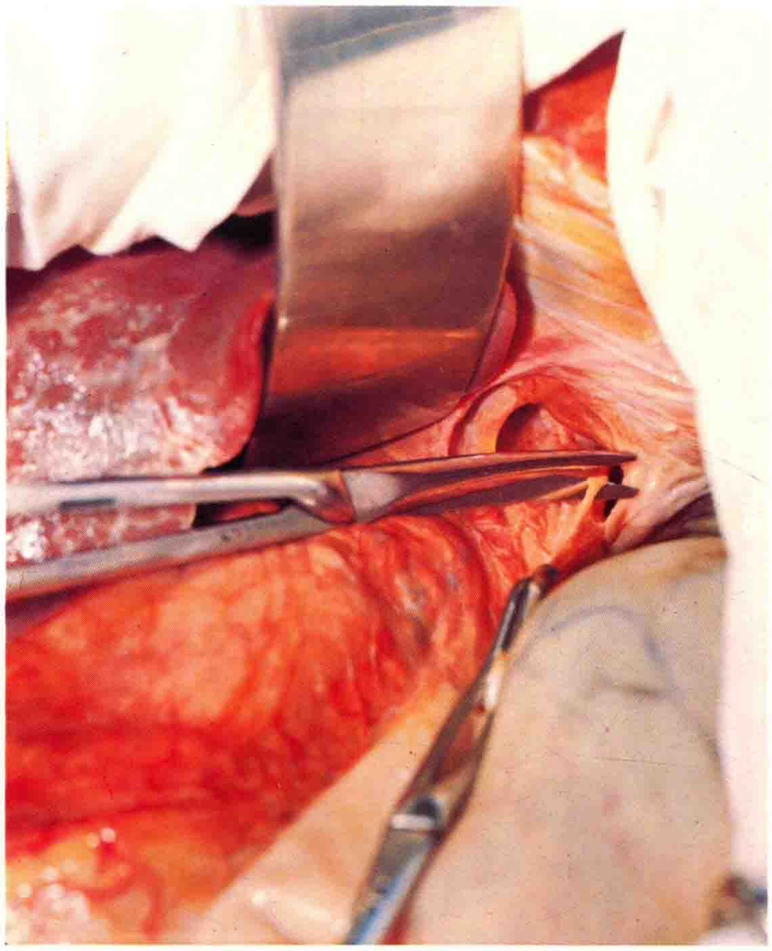
To see and to feel the left (anterior) vagus, one move only is required: place a pair of tissue-forceps upon the highest point of the lesser curvature of the stomach, and apply gentle traction to these.

The nerve is immediately stretched and becomes identifiable as a taut thread in front of the left edge of the oesophagus. This is both visible and palpable.

5 *Division of the left vagus*

Having thus located the vagus, it must next be freed from the oesophagus, to which it adheres by a thin common fascia. The freeing is carried out with the points of long, blunt-pointed scissors, or more simply with the bent index finger. This finger lifts and tightens the nerve like a violin string upon its bridge. The nerve should appear whitish in colour, the width of a matchstick. It is only necessary to divide it or to resect one centimetre of its length with the aid of scissors held in the left hand.

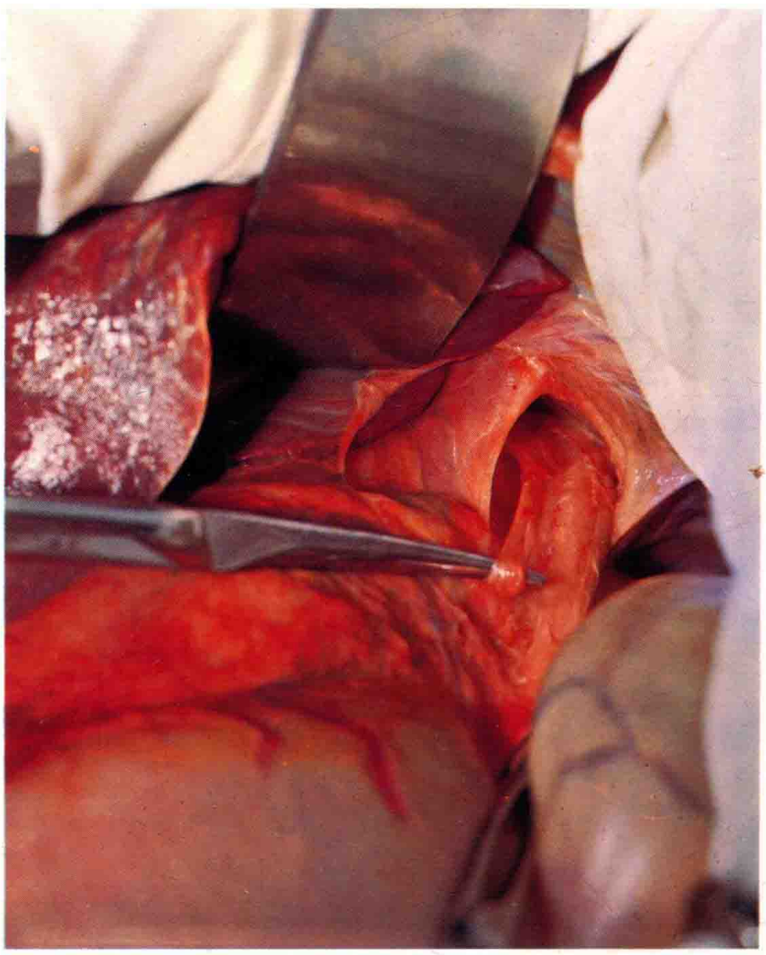
No ligature is necessary.

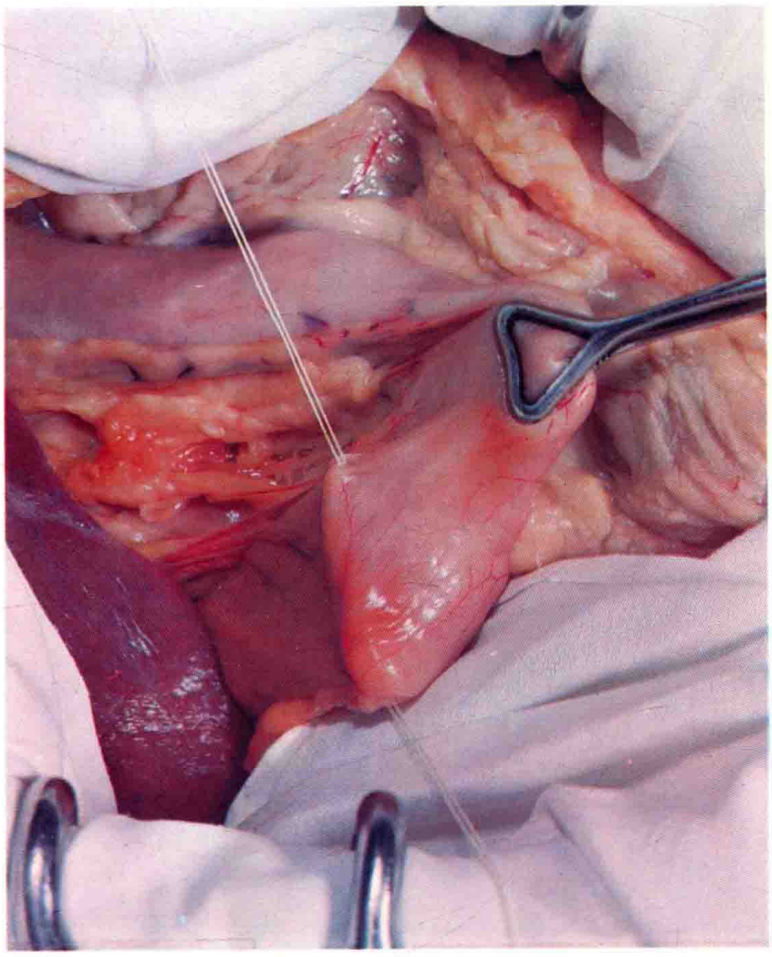


6 *Displaying the right vagus*

The right (posterior) vagus is more difficult to find. It is not adherent to the oesophagus, but lies a few millimetres away from it, to the right of the right side of that structure. It is completely invisible, and is always located by the finger. The thumb and index finger must encircle the whole thickness of the oesophagus from the left, and the tips of two fingers must look for and identify this vertical band, which is also stretched by traction on tissue forceps. Having been isolated, it is divided with scissors.

The vagotomy is complete. Neither peritonisation nor local drainage is necessary. Reconstitution of the oesophago-gastric angle (angle of His) is a sensible precaution to avoid oesophageal reflux. (See Hiatus hernia p.7 *et seq.*)





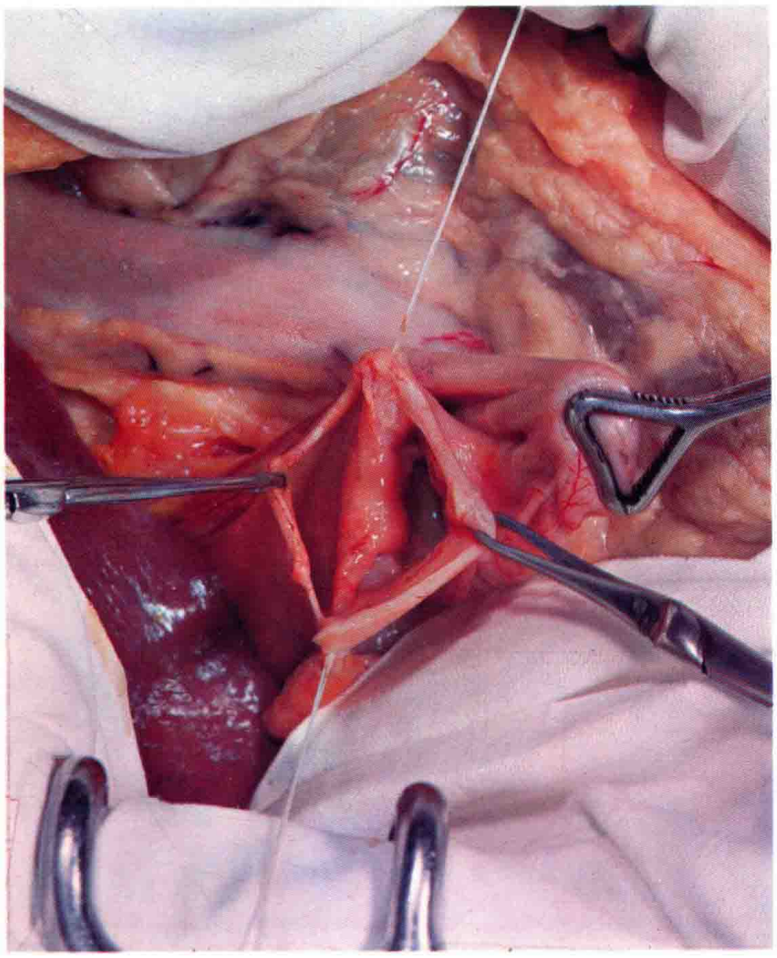
Pyloroplasty

7 *Locating the pylorus*

Every vagotomy must be followed by an operation for gastric drainage: pyloroplasty is the simplest procedure.

The pylorus is identified. Two thread sutures are placed at the upper and lower borders of the pyloric ring.

These sutures are tied and ensure haemostasis. They are preserved and act as markers.



8 *Excising the anterior part of the pylorus*

The anterior portion of the pylorus is now excised by means of a rectangular incision, cutting from above downwards. The edges extend transversely for several millimetres on either side of the pyloric ring, excising equal amounts of duodenal and gastric wall.

Haemostasis is obtained on the cut edges.

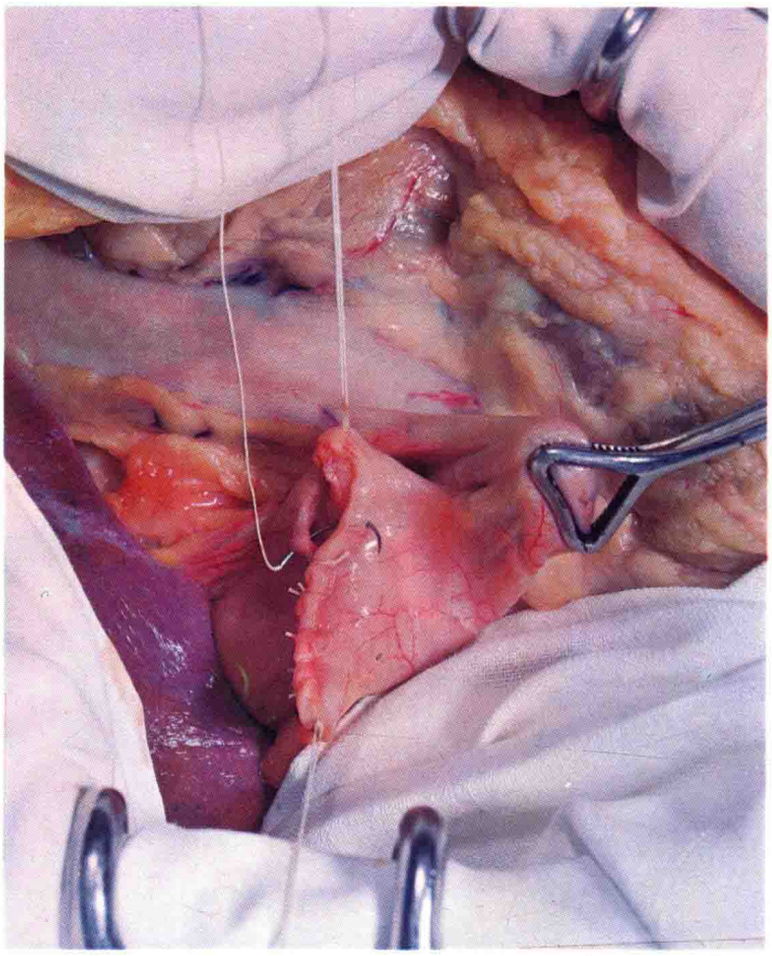
The illustration shows the operation area following removal of the rectangle: on the left forceps hold the thin duodenal wall, while on the right, the thicker gastric wall is visible. In the centre of the opening the outline of the posterior half of the pyloric ring is held between the marking sutures.

9 *Pyloric closure with pyloroplasty*

The opening of the pylorus anteriorly is followed by a pyloroplasty which sutures the four edges of the rectangle in a single vertical line, as a result of traction on the marking sutures.

The suturing is carried out with interrupted sero-muscular sutures of thread.

There is no drainage, but the positioning of a gastric tube, or a temporary gastrostomy is wise, as in all vagotomies.



2

REPAIR OF HIATUS HERNIA

The repair of a hiatus hernia by the abdominal route consists of suturing together the margins of the oesophageal hiatus behind the oesophagus. The procedure is completed by reconstituting the oesophago-gastric angle (angle of His) and, if needed, by a Nissen type of gastric fundoplication.

The operation begins as for a vagotomy: a midline incision, with removal of the xiphoid process, and freeing the left lobe of the liver to demonstrate the abdominal portion of the oesophagus.

Two assistants are required. The surgeon stands to the right of the patient, from where the photographs have been taken.

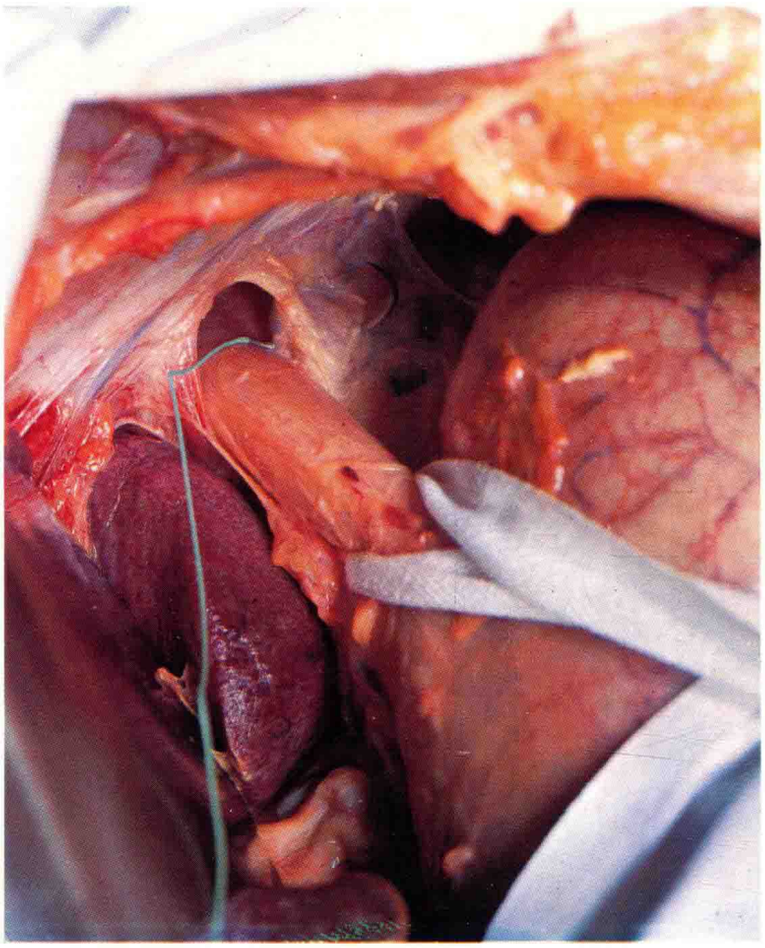
Suture of the hiatal margins

10 *Suture of the margins. Securing the left margin*

With the aid of a curved clamp, a tape is passed behind the oesophagus to apply traction.

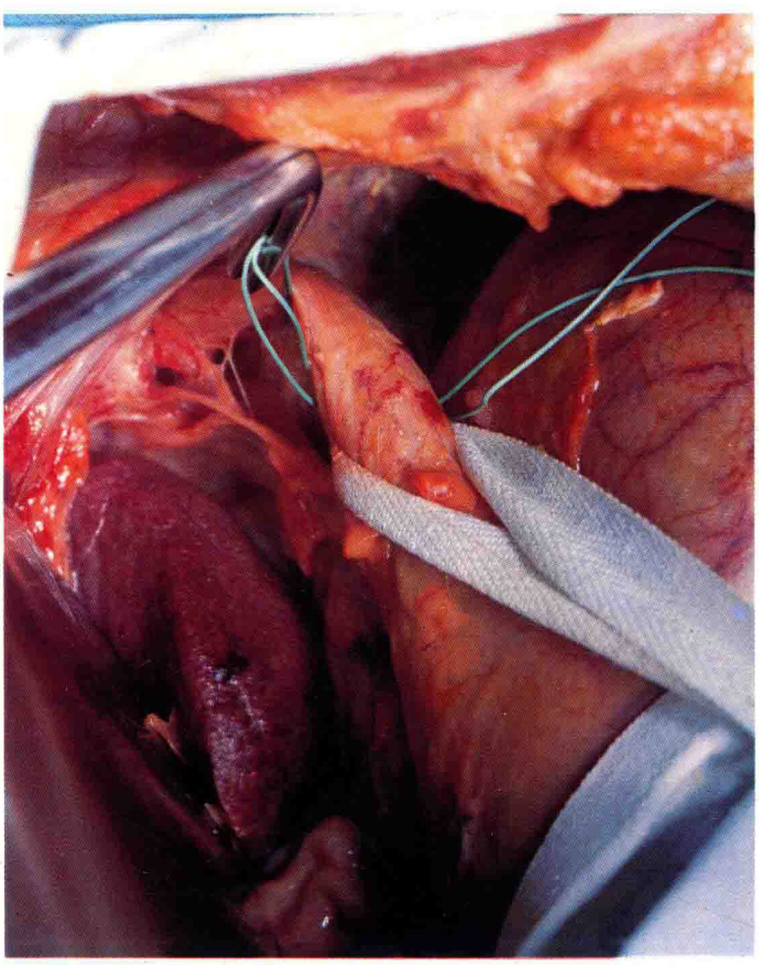
Suture of the edges of the hiatus is carried out with non-absorbable material, and the stitches must lie behind the oesophagus.

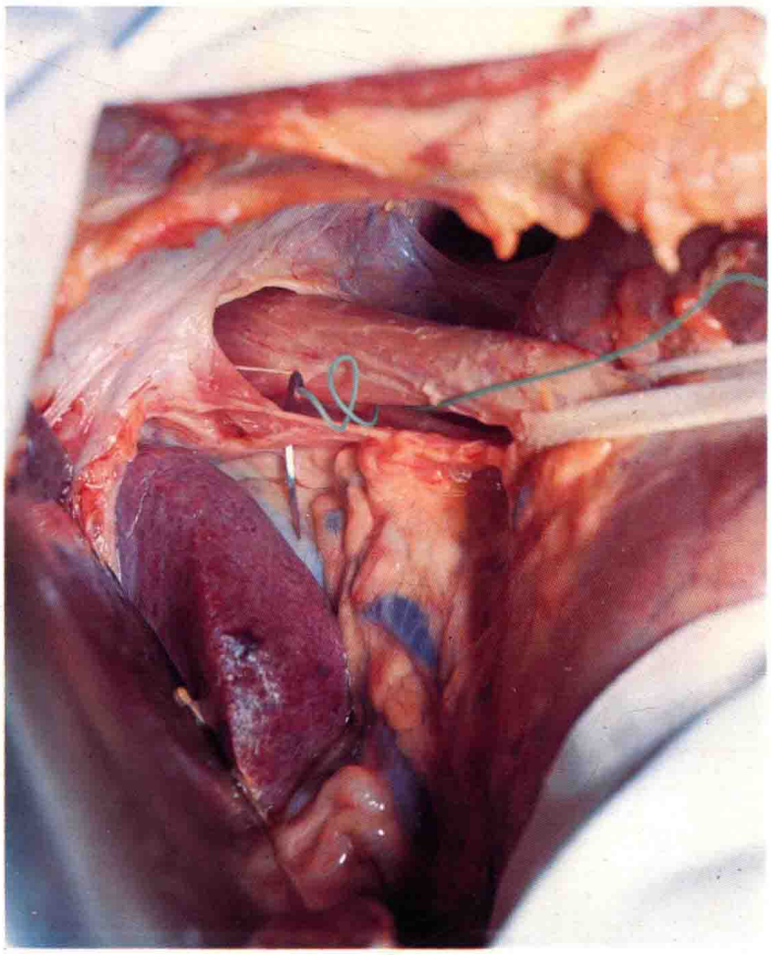
In this view, a needle carrying a nylon suture has taken a wide bite through the left margin of the hiatus.



11 *Passing the stitch behind the oesophagus*

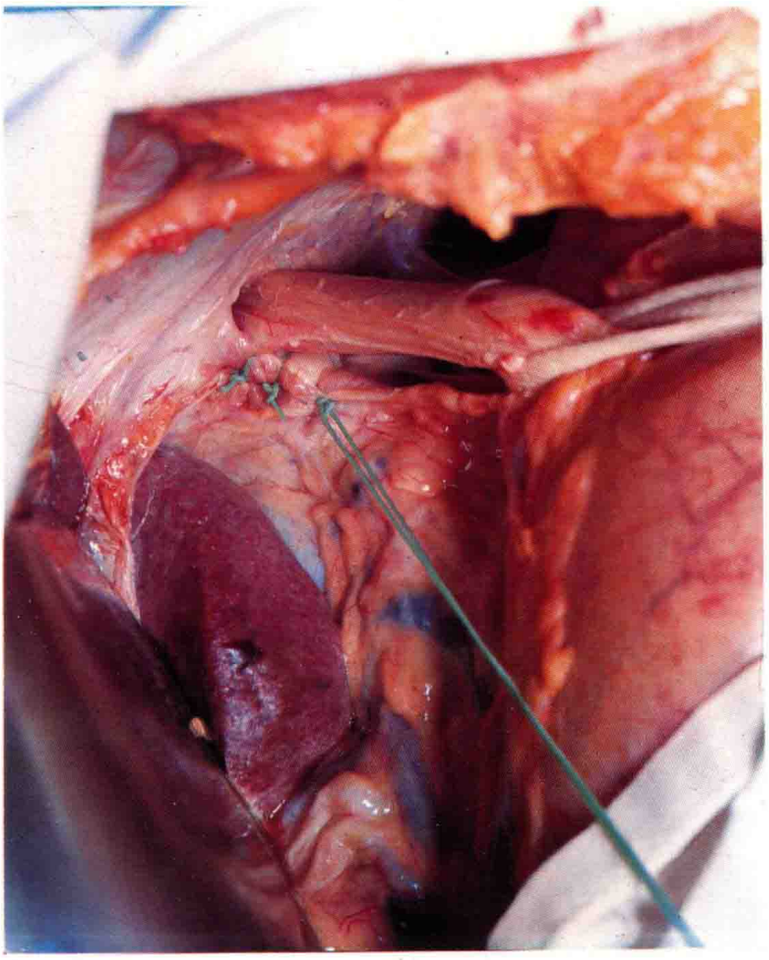
A long curved clamp carries both strands of the nylon behind the oesophagus from left to right.





12 *Securing the right margin*

The same needle takes a secure bite through the right margin of the hiatus.



13 *Tying the sutures*

The suture is tied. It must lie comfortably behind the oesophagus.

By traction on the first locating stitch, it is then easy to perform direct suturing between the two pillars, narrowing the hiatus as required.