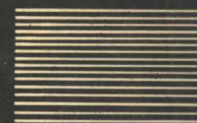


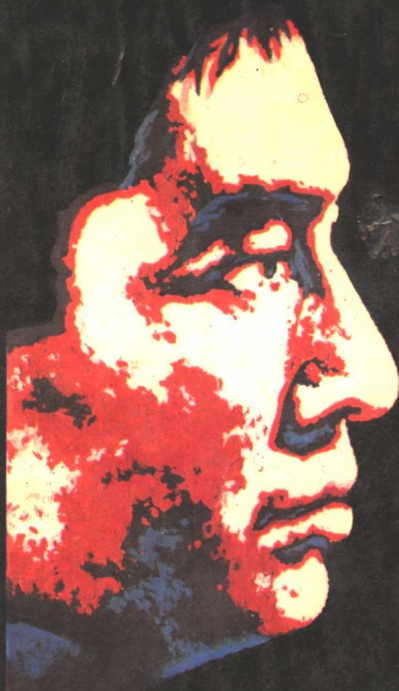
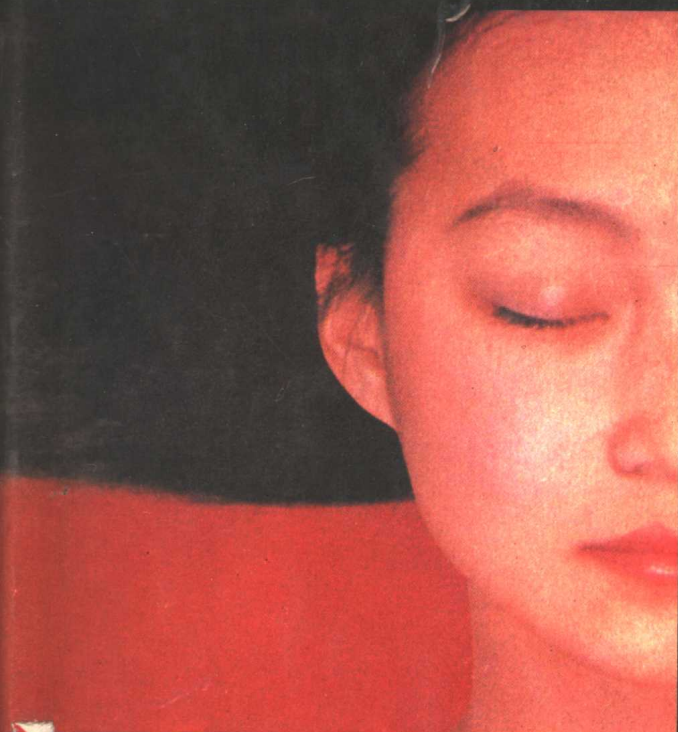
中國正常成人橫斷解剖、 X綫、超聲與C T圖像

AN ATLAS AND IMAGES OF CROSS SECTIONAL ANATOMY, X RAY, ULTRASOUND AND CT FOR NORMAL CHINESE ADULTS

蘇濟豪 盧 鵬 主編



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HENAN SCIENTIFIC AND TECHNICAL PUBLISHING HOUSE 河南科學技術出版社



An Atlas and
Images of Cross-Sectional
Anatomy, X-ray, Ultrasound and CT
for Normal Chinese Adults

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COMMENTS

This publication is a collection of sequential graphs for human cross-sectional anatomy, X-ray, ultra-B, and computerized tomography. The data were selected from cross-sectional anatomic specimens of multiple normal adult human cadavers, male and female. These data comprised 147 cross-sectional planes, divided into eleven parts as follows: cranium and brain, eye and orbit, face, neck, thorax, upper abdomen, lower abdomen, male pelvis, female pelvis, spinal column, and extremities. For every plane, there are a full-color photograph of real specimen, a X-ray film, a scan for ultra-B and CT respectively, and a schema and an illustration for section line. In addition, twelve groups of ultra-B scans and schema for normal human abdomen were also presented as appendix. There are 153 groups of pictures in all. Each picture is illustrated in both Chinese and English language. The book may be of great value in academic and practical use for it's clear and real-like figures, and will benefit the radiologists, ultra-B and CT specialists, clinicians, medical students, anatomists, and pathologists.

本書集人體橫斷面的解剖、X綫、B超、CT圖象於一冊。作者從多具正常成年男女尸體連續橫斷標本中選取珍貴資料，按顱腦、眼與眶、面、頸、胸、上腹、下腹、男性盆部、女性盆部、脊柱和四肢關節十一個部分，將人體分為147個橫斷面。每個斷面制取實物標本彩色攝影圖象，X綫平片、B超和CT圖象，并繪出相應層面的素描圖與切綫圖。另將正常人腹部B超與素描輪廓圖12組列為附篇。全書計153組圖象，每組圖象均有中英文對照說明，及本組圖象中解剖部位的中英文名稱及縮寫符號。本書圖象清晰，色澤逼真，具有較高的學術價值和實用意義。適用於放射科、B超、CT專業人員，臨床醫生，醫學生，解剖學與病理學工作者。

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PREFACE

Computed Tomography (CT) and Gray Scale Ultrasound B are two new techniques developed in 1970's. In the past decade, with the great progress acquired in the development of machines and the preparation of software, the images made by CT and ultrasound B become clearer, stereoscopic and give a sense of reality, more and more. CT and ultrasound B have made a remarkable contribution to scientific research and clinical diagnosis and will continue to play an even greater role in the future clinical practice.

Since the early 1978's CT was introduced in China, the technology of CT as well as Ultrasound B had undergone a rapid development. There were an increase in number of medical staff working in these field and their clinical use become wider and wider. Thus, an atlas of cross-sectional anatomy -- the basis of imaging is in great demand for many medical workers.

This atlas, as a result of joint efforts of our collaborative group, has been designed to present a basic knowledge of human cross-sectional anatomy in manner that will enable the medical staff to achieve a clear understanding of the subject as rapidly as possible. It can serve as a textbook for basic course or a reference book on medical imaging useful to medical workers. Data were obtained from 11 Chinese normal cadavers (4 females, 7 males). The specimens used were selected from more than 1,000 cross anatomic sections. With the CT and sonographic images obtained from volunteers with similar biological status (age, sex, stature), the specimens form 147 groups of images. Each group include a full-color photograph, a schematic drawing, a radiograph, a CT scan and a sonographic image (for abdominal region only) of a same level, so the comparison can easily be made.

The materials are divided into 11 chapters as follows: skull and brain, eye and orbit, face, neck, chest, superior abdomen, lower abdomen, male pelvis, female pelvis, spine and limbs. Each chapter was written in English, Chinese language and with notes in Latin.

The member of the group come from Department of Radiology and Computed Tomography of Henan Tumor Institute; Department of Gross Anatomy of Chinese Traditional Medical University of Henan; Department of Gross Anatomy of Medical University of Henan. The first draft of the atlas was honred to present in the annual meeting of Chinese Academy of Anatomy in october 1984, and revised according to some specialists, suggestion.

We greatly acknowledge the assistance of Fan Su-Fang, Qu Mei-Ling and Kuang Da-Ming for their helpful works on the preparation of the atlas.

The authors would like to express their grateful acknowledgement also to Dr. Lu Shi-cheng, chief of department, Henan Medical Information Institute, for his helpful contribution in the preparation and revision of English text of this atlas.

All suggestions for improvement are welcomed.

前 言

電子計算機X綫斷層掃描術(CT)和B型灰階超聲診斷學是二十世紀七十年代的新興技術。近十多年來隨着機器的迅速發展,各類軟件的改進,圖象越來越富有直觀、立體和真實感,為科學研究和臨床診斷作出了卓越的貢獻,並將在今後的臨床實踐中繼續發揮更大的作用。

我國自1978年引進CT以來,CT和B型超聲診斷術也正在不斷發展,從事該專業的醫務人員隊伍日趨擴大,臨床應用日益廣泛。廣大醫務工作者迫切需要一本作為醫學影像學基礎的斷層解剖學圖譜。

本圖譜,作為本協作組共同努力的結果,目的在於為醫務人員提供人體斷層解剖的基礎知識,使他們對有關問題能盡快地有一個清晰的理解。它可作為一本教科書,也可作為醫學影像學方面的一本參考書。資料取自11具正常中國人的屍體,從1000多份大體解剖切面中,精選出147份切面圖,再加上在自願者身上取得的CT和超聲圖象,組成153組圖象,每一組圖象包括同一個切面的彩色圖象、切綫和綫條素描圖、X綫照片、CT掃描圖、超聲掃描圖,這樣讀者容易在同一層次上進行比較和對照。

全書分為11篇:顱腦、眼與眶、面、頸、胸、上腹、下腹、男性盆部、女性盆部、脊柱和四肢,此外並附有正常成人腹部B型灰階超聲圖象。用中英文對照說明,並有拉丁文注解。

協作組的成員來自河南省腫瘤研究所X綫與CT室,河南中醫學院人體解剖教研室,河南醫科大學人體解剖教研室。本書初稿曾在1984年10月中國解剖學會年會上作過論文宣讀,經專家們提出意見後予以修改。

范素芳、屈美玲和匡大明等同志對本書的形成提供了巨大的協助,在此謹表示謝意。

我們地向河南省醫學情報研究所陸士澄主任在本圖譜英文稿的撰寫和校訂中所作的工作致以謝意。

歡迎對本書提出改進的意見。

編 者

一九八六年春於鄭州

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CHAPTER ONE

Skull and Brain

Skull and brain comprise alle the contents between the plane of atlanto-occipital joint and the top of skull, including brain and its surrounding bony and soft investment.

The planes of sections for computed tomography used by CT specialists abroad remain yet different. Our baseline for the plane of section is the orbit-auditory line, a line from the external canthus of the eye to the center of the external auditory meatus. The line can be easily located. The anatomic features of the skull and brain are shown in 10 levels from the orbit-auditory line to the top of the skull. Each section has 1cm in net thickness, with a loss of 0.2cm during slicing.

Since the structurcs of the brain in Level 3 and Level 4 is very important, the images of those two levels viewed from both below and above are presented. There are 12 groups of images in this chapter. Group 4 is the superior aspect of Level 3, and Group 6 is the superior aspect of Level 5. The remained are all inferior aspect of the sections, according with the usual practice in CT.

There is not great difference between the superior aspect and inferior aspect of a radiograph, since the thickness of the sections is only 1cm. Radiographs in this chapter were not taken at the same time with color photographs. The specimens were kept in unproper conditions and they turned dry and the tissues were separated, as a result, the space between the brain structures became larger.

In this chapter, all the color photographs and radiographs of each level were taken from the cross-section specimen on the same cadaver. So the data obtained may be of greater value to clinical use.

第一篇

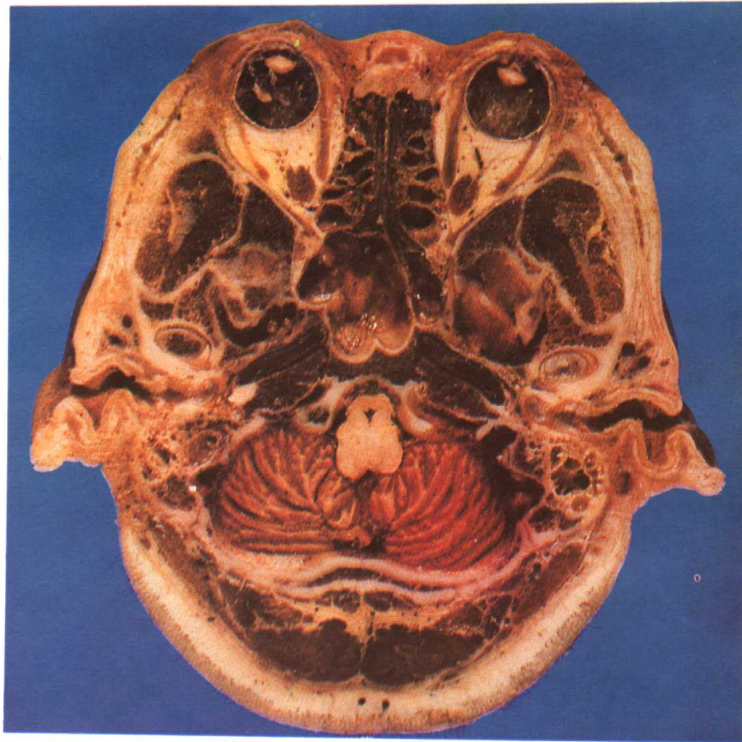
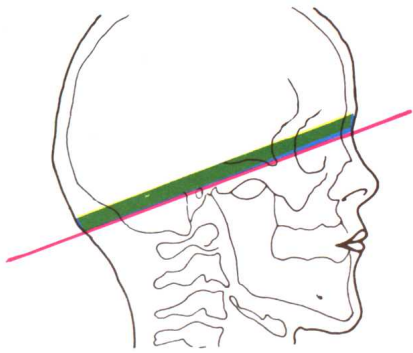
顱腦部

顱腦部是指寰枕關節的平面至顱頂間的結構，包括有腦組織，腦顱骨和其覆蓋的軟組織。

國外的 CT 專業醫師們，對顱腦部 CT 掃描基線的投影，是各立其說，尚未統一。我們採用的顱腦部切面線為聽背線（自外耳孔中心點與眼外眥角間的聯線），其優點是容易定位，然後自聽背線至顱頂間按 1.2 厘米厚度，截鋸成 10 片連續斷層標本，除去鋸縫間的組織損耗，所得每片標本厚度為 1 厘米。由於第 3 和第 4 片標本中的腦組織結構較為重要，故對該兩片標本的上下面，都作了攝影和描圖，所以共編排成 12 組圖象，第 4 組是第 3 組標本上的上面觀，第 6 組是第 5 組標本的上面觀，其餘都是屬於由下面觀的圖象。這是符合 CT 專業臨床應用的慣例。

再者，在 1 厘米厚度的標本，作 X 綫拍片取得的影象，其上下面的區別是不太顯著的。本篇標本的 X 拍片，拍照時沒有和標本彩色攝影同時進行，由於保存不當，標本乾燥，組織分離，所以在 X 綫影象上顯示出腦組織結構間隙較大，請使用時注意。

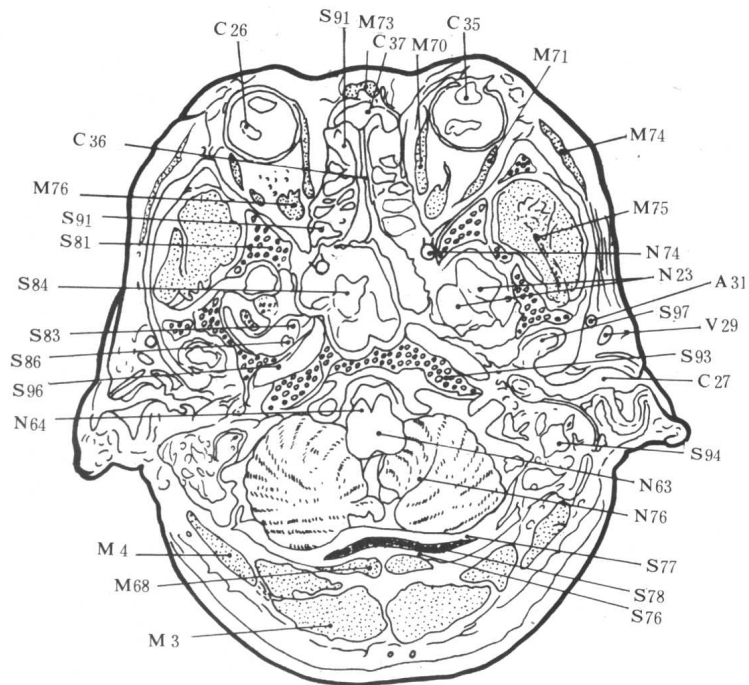
本篇中所有的彩色片，X 綫片和描繪的簡圖，都是在同一具尸體，所完成的連續斷層標本上取得的，這樣才具有臨床應用的價值。



第1組：顱腦部第1平面・圖示：基綫（聽眥綫）水平面・顯示出外耳道、下頷髁和蝶竇。在這一平面上，尚可見到小腦半球、延髓、晶狀體和眼外肌群。（由上面觀）

No: 1. SB-1 Anatomical diagram at the base (The orbital-meatal line) line and demonstrating the external auditory, the mandibular condyle and the sphenoid sinus. At this level, the cerebellar hemisphere, the medulla oblongata, the lens and extraocular muscles also seen in this section. (Superior aspect)





A31. 顳淺動脈 A. temporalis superficialis

C26. 眼球 Globe

C27. 外聽道 Meatus acusticus externus

C35. 晶狀體 Lens

C36. 鼻中隔 Septum nasi

C37. 鼻背 Dorsum nasi

M3. 頭半棘肌 M. semispinalis capitis

M4. 頭夾肌 M. splenius capitis

M68. 頭後直肌 M. rectus capitis posterior

M70. 內直肌 M. rectus medial

M71. 外直肌 M. rectus lateralis

M73. 鼻肌 M. nasalis

M74. 面肌 M. faciales

M75. 咬肌 M. masticatores

M76. 眼球肌 Mm. bulbi

N23. 顳葉 Lobus temporalis

N63. 延髓 Medulla oblongata

N64. 錐體 Pyramis

N74. 視神經 Nervus opticus

N76. 小腦半球 Hemispherium cerebelli

S76. 外板 Lamina externa

S77. 內板 Lamina interna

S78. 板障 Diploe

S81. 蝶骨大翼 Ala major sphenoid

S83. 卵圓孔 Foramen ovale

S84. 蝶竇 Sinus sphenoidale

S86. 頸內動脈管 Canalis caroticus

S91. 篩竇 Sinus ethmoidale

S93. 巖部 Pars petrosa

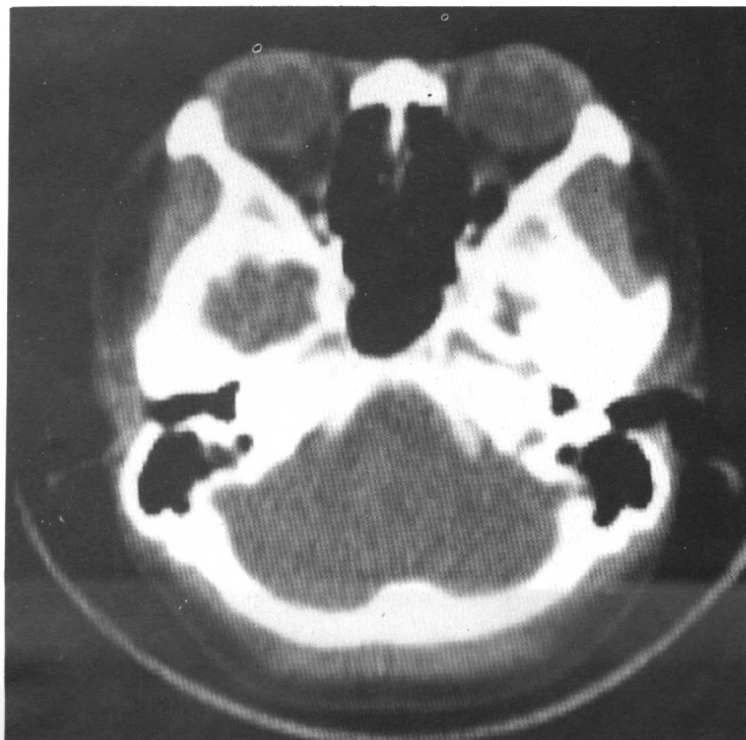
S94. 乳突 Processus mastoidea

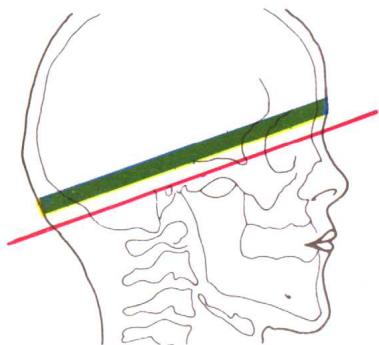
S96. 頸內靜脈孔 Foramen jugular

S97. 下頷髁 Condylaris mandibulae

V28. 乙狀竇 Sinus sigmoideus

V.29 顳淺靜脈 Vv. temporales superficiales

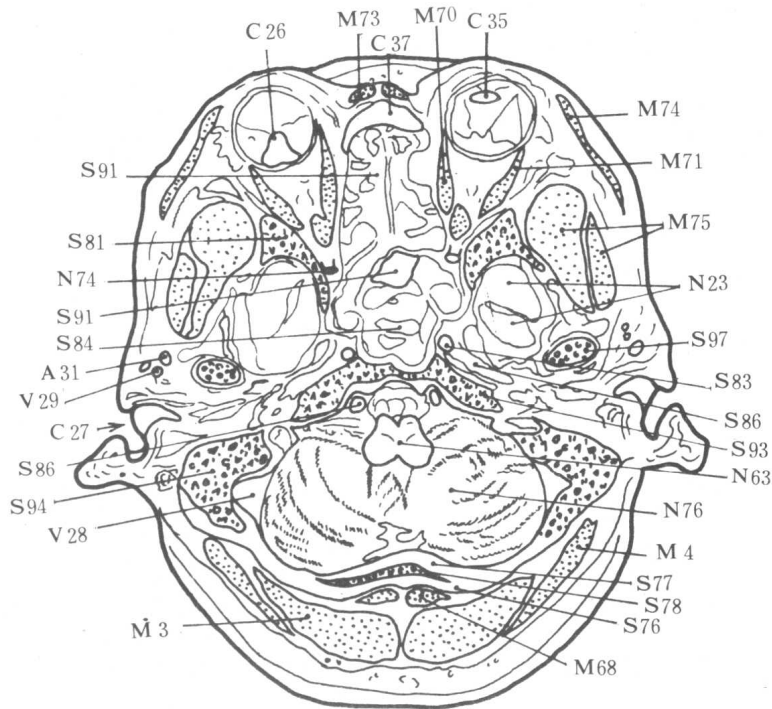




第2組：顱腦部第2平面。圖示：聽眥綫水平切面，顯露出外耳道、乳突小房、蝶竇等骨質結構，也出現小腦半球及顱葉的下部。

No: 2 SB-2 Anatomical diagram at the level of the orbital meatal line and demonstrating the following bony structures: external auditory canal, mastoid air cells and sphenoid sinuses. Note also the appearance of the cerebellar hemi spheres and the inferior portions of the temporal lobes.





A31. 颞浅动脉

A. temporalis superficialis

C26. 眼球 Globe

C27. 外听道 Meatus acusticus externus

C35. 晶状体 Lens

C36. 鼻中隔 Septum nasi

C37. 鼻背 Dorsum nasi

M 3. 头半棘肌 M. semispinalis capitis

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M71. 外直肌 M. rectus lateralis

M74. 面肌 M. faciales

M75. 鼻肌 M. nasalis

M76. 眼球肌 M. bulbi

N23. 颞叶 Lobus temporalis

N63. 延髓 Medulla oblongata

N64. 锥体 Pyramis

N74. 视神经 Nervus opticus

N76. 小脑半球 Hemisphaerium cerebelli

S76. 外板 Lamina externa

S77. 内板 Lamina interna

S78. 板障 Diploe

S81. 蝶骨大翼 Ala major sphenoid

S83. 卵圆孔 Foramne ovale

S84. 蝶窦 Sinus sphenoidale

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S91. 筛窦 Sinus ethmoidale

S93. 岩部 Pars petrosa

S94. 乳突 Processus mastoidea

S96. 颈内静脉孔 Foramen jugularis

S97. 下颌髁 Condylaris mandibulae

V28. 乙状窦 Sinus sigmoideus

V29. 颞浅静脉

V. temporales superficialis

