

Mock Conversation – Lecture 5

Overview of Medical Imaging 医学影像概述 (10-13 页)

医生 (Doctor):

Hello, please have a seat. You would like to know more about medical imaging today, right?

您好,请坐。今天您想了解一下医学影像的情况,对吗?

患者 (Patient):

Yes, doctor. I'm a bit confused. What's the difference between the various imaging tests? What are they mainly used for?

是的,医生。我有点困惑,不同的影像检查有什么区别?它们主要是用来做什么的?

医生 (Doctor):

Sure, let me explain in detail. The primary purpose of medical imaging is to help us see the internal structures of the body in a non-invasive way, allowing us to detect, diagnose, and monitor diseases.

好的,我来为您详细解释一下。医学影像的主要目的是帮助我们通过无创的方式看到体内的结构,从而检测、诊断和监控疾病。

患者 (Patient):

Non-invasive means no surgery is needed, right?

无创的意思是不需要做手术,对吗?

医生 (Doctor):

Correct. Medical imaging allows us to use techniques like x-rays, CT scans, MRI, and

ultrasound to get images and detect issues early on.

正确。医学影像让我们可以通过 X 射线、CT、MRI 和超声等技术获取图像,帮助早期发现问题。

患者 (Patient):

How do these tests help in detecting diseases?

那这些检查怎么帮助检测疾病呢?

医生 (Doctor):

For example, x-rays help us detect fractures or lung infections, while mammograms can detect breast cancer early. Ultrasound can detect cysts, tumors, or aneurysms.

比如说,X 光可以帮助我们发现骨折或肺部感染,而乳腺 X 光摄影可以早期发现乳腺癌。超声可以检测囊肿、肿瘤或动脉瘤。

患者 (Patient):

I see. How do they work in diagnosing diseases?

明白了,那它们在诊断疾病方面又是如何工作的呢?

医生 (Doctor):

For diagnosis, CT and MRI are very useful. CT helps us locate the size and position of tumors, while MRI gives us clearer details of the brain, spine, and joints.

诊断方面,CT 和 MRI 非常有用。CT 可以帮助我们定位肿瘤的大小和位置,而 MRI 可以更清晰地看到大脑、脊柱和关节的细节。

患者 (Patient):

So, if a tumor is found, CT or MRI can accurately show its location and size?

所以,如果发现肿瘤,CT 或 MRI 可以准确显示它的位置和大小?

医生 (Doctor):

Yes, exactly. That way, we can decide if surgery or further treatment is necessary based on the images.

是的,这样我们可以根据图像决定是否需要手术或进一步治疗。

患者 (Patient):

Can these imaging techniques also be used to monitor the effectiveness of treatment?

那这些影像技术可以用于监控治疗效果吗?

医生 (Doctor):

Absolutely. For example, during cancer treatment, we regularly perform CT or MRI scans to see if the tumor is shrinking and if the treatment is effective.

完全可以。比如在癌症治疗中,我们会定期进行 CT 或 MRI 扫描,看看肿瘤是否缩小,治疗是否有效。

患者 (Patient):

If the treatment isn't effective, will imaging help adjust the treatment plan?

如果治疗没有效果,影像检查会帮助调整治疗方案吗?

医生 (Doctor):

Exactly. Based on the imaging results, we can adjust the treatment plan, like changing medications or considering surgery.

没错,根据影像结果,我们可以及时修改治疗方案,比如更换药物或考虑手术。

患者 (Patient):

Doctor, what's the difference between screening and detection?

医生,您提到的筛查和检测有什么区别?

医生 (Doctor):

Screening refers to imaging tests we use to prevent or detect diseases early before a patient has symptoms. Mammograms and colonoscopies are typical examples of screening.

筛查是指我们在患者还没有症状时,通过影像检查来预防或早期发现疾病。比如乳腺 X 光检查和结肠镜筛查就是典型的例子。

患者 (Patient):

I see, so screening can catch issues early before they get worse.

明白了,筛查可以提前发现问题,防止疾病恶化。

医生 (Doctor):

Exactly. This allows us to take action early, and treatment is often more effective.

对的,这样我们就可以在早期采取措施,通常治疗效果会更好。

患者 (Patient):

Can imaging techniques be used during surgeries?

那影像技术还能在手术中使用吗?

医生 (Doctor):

Yes, during surgeries, we can use real-time imaging guidance, like ultrasound or fluoroscopy, to ensure precision.

是的,手术过程中我们可以使用实时影像引导,比如超声或 X 光透视,以确保手术的精确性。

患者 (Patient):

That sounds very advanced. Are these tests all safe?

这听起来非常先进,那这些检查是否都安全呢?

医生 (Doctor):

Most imaging tests are very safe. Although some use radiation, the doses are very low and the risks are minimal. Ultrasound and MRI, for example, don't use radiation and are very safe.

大多数影像检查都非常安全。虽然有些检查使用辐射,但剂量很低,风险也很小。

超声和 MRI 没有辐射,是非常安全的。

患者 (Patient):

It sounds like medical imaging helps a lot. I feel more confident about getting these tests now.

听起来医学影像真的帮助很多,我可以更放心接受检查了。

医生 (Doctor):

Yes, imaging tests help us better understand your health and create the best treatment plan for you.

是的,影像检查能让我们更好地了解您的健康状况,帮助制定最佳的治疗方案。

Steps in Medical Imaging Procedures 医学影像过程 (23-24 页)

接待员 (Receptionist):

Hello Ms. Wang, what type of exam are you here for today?

王女士您好,请问今天来做什么检查?

患者 (Patient):

My doctor asked me to get an abdominal ultrasound.

我的医生让我来做一个腹部超声检查。

接待员 (Receptionist):

Okay, please provide your health card and appointment form, and I'll help you check in.

好的,请您提供一下健康卡和预约单,我来帮您登记。

患者 (Patient):

Sure, here is my health card.

好的,这是我的健康卡。

接待员 (Receptionist):

Thank you, your information is confirmed. Please have a seat, and the technician will call you shortly.

谢谢,信息已核对完毕。请稍等片刻,技师会叫您进去。

技师 (Technician):

Hello Ms. Wang. Please follow me, we're ready to begin your exam.

王女士,您好,请跟我来,准备开始您的检查。

患者 (Patient):

Is there anything I need to do to prepare?

我需要做什么准备吗?

技师 (Technician):

Yes, please change into the gown and leave all metal objects in the changing room.

是的,请您更换检查服,并把所有金属物品留在更衣室里。

患者 (Patient):

Does that include my watch and jewelry?

金属物品包括我的手表和首饰吗?

技师 (Technician):

Yes, any metal can interfere with the imaging. After changing, please lie down on the exam bed, and I'll help you get positioned.

是的,任何金属都会影响成像质量。换好衣服后请躺在检查床上,我会为您调整位置。

技师 (Technician):

You're all set. Now I'll apply some cold gel on your abdomen. This helps the ultrasound probe make better contact with your skin.

您已经躺好了,现在我将涂一些冷凝胶在您的腹部,这是为了让超声探头更好地接触皮肤。

患者 (Patient):

Okay, do I need to stay still during the exam?

好的,检查过程中我需要保持不动吗?

技师 (Technician):

Yes, please remain still so we can get clear images. If I need you to adjust your breathing, I'll let you know.

是的,请保持静止,这样我们可以得到更清晰的图像。如果需要您调整呼吸,我会告诉您。

患者 (Patient):

Got it. How long will the exam take?

好的,整个检查大概需要多长时间?

技师 (Technician):

It will take about 15 to 20 minutes, depending on how many images we need.

大约需要 15 到 20 分钟,取决于我们需要获取的图像数量。

患者 (Patient):

Understood, I'll do my best to cooperate.

明白了,我会尽量配合。

技师 (Technician):

Alright, I'm starting to capture the images now. Please breathe normally.

好,现在我开始拍摄图像,请保持正常呼吸。

患者 (Patient):

The probe feels a little cold, but it's not uncomfortable.

这个探头有点凉,但没有不适。

技师 (Technician):

That's good, it's a normal sensation. In a moment, I'll ask you to hold your breath for a few seconds to get clearer images.

很好,这是正常的感觉。稍后我会让您屏住呼吸几秒钟,以便获取更清晰的图像。

患者 (Patient):

No problem, just let me know when.

没问题,您随时告诉我。

技师 (Technician):

Please hold your breath now, and exhale after three seconds.

现在请屏住呼吸,三秒后再呼气。

患者 (Patient):

(Holding breath) okay, I can exhale now?

(屏住呼吸)好的,现在可以呼气了。

技师 (Technician):

Yes, very good. The images are captured. You can relax now, the exam is complete.

是的,非常好,图像已经获取。现在您可以放松,检查已经完成。

技师 (Technician):

You can go to the changing room and get dressed. The results will be sent to your doctor.

您可以去更衣室换回自己的衣服,检查结果会送到您的医生那里。

患者 (Patient):

How long will it take for the results to be ready?

检查结果大概要多久出来?

技师 (Technician):

Usually within two to three days, your doctor will receive the report. If further testing is needed, your doctor will contact you.

通常两到三天内您的医生会收到报告。如果有需要进一步的检查,您的医生会联系您。

患者 (Patient):

Thank you, the whole process was very smooth.

谢谢您,整个过程非常顺利。

技师 (Technician):

You're welcome, take care!

不客气,祝您一切顺利!