Increased episodes of anatomy comic strips

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Anatomy Comic Strips

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Comics are powerful visual messages that convey immediate visceral meaning in ways that conventional texts often cannot. This article’s authors created comic strips to teach anatomy more interestingly and effectively. Four-frame comic strips were conceptualized from a set of anatomy-related humorous stories gathered from the authors’ collective imagination. The comics were drawn on paper and then recreated with digital graphics software. More than 500 comic strips have been drawn and labeled in Korean language, and some of them have been translated into English. All comic strips can be viewed on the Department of Anatomy homepage at the Ajou University School of Medicine, Suwon, Republic of Korea. The comic strips were written and drawn by experienced anatomists, and responses from viewers have generally been favorable. These anatomy comic strips, designed to help students learn the complexities of anatomy in a straightforward and humorous way, are expected to be improved further by the authors and other interested anatomists. Anat Sci Educ 00: 000-000. © 2011 American Association of Anatomists.

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Article was introduced in Korean newspaper.
Episodes in English was increased from 13 to 300.

I was asked how much the cadaver scared me.

That is FAQ (frequently asked question).

Are you afraid?

When I was a medical student, my answer was very simple.

A cadaver isn't so bad compared to an exam because if I don't do well on a test, I will fail in the medical school.

When I became an anatomy professor, my answer got even simpler.

A cadaver is less terrifying than a living person.

because the living persons might definitely harass me.

Work hard! 
- Dean

Make money!
- Family

Pay debts!
- Saloon keeper
Dr. Anatophil was cast as main character.
Let me show you comic strips directly.

Narrative on why and how to create comic strips is in article.

Why don’t I show samples right?
During the lecture about erector spinae, I said ‘I Love Spine.’

I, L, S is a tip to remember three muscles.
Today's lecture was that the major structures are placed under the minor ones.

It looks very stable since the bigger supports the smaller. Examples are...

He says as if the locations are on purpose and not incidental.
Rectus capitis posterior minor

Rectus capitis posterior major

Zygomaticus minor

Zygomaticus major

And also the rectus capitis posterior and zygomaticus are ordered.

Major duodenal papilla

Minor duodenal papilla

So is the duodenal papilla.

It is possible to say that the other instance is labia minora and majora in the anatomical position.
Today’s lecture was about the knee joint ligaments.

The direction of an anterior cruciate ligament...

is the same as if my hand is in the front pocket. In other words, it declines inferiorly, medially and anteriorly.

Every time I teach this, the urogenital triangle feels itchy.
Today's lecture was about the knee joint ligaments.

The direction of an anterior cruciate ligament...

Anterior cruciate ligament

Femur

Posterior cruciate ligament

Tibia

Fibula

The course of posterior one is like my hand in the contralateral back pocket. Namely, it tilts inferiorly, laterally, and posteriorly.

The anal triangle also itches.
47 Korean medical students were surveyed.

Are comic strips helpful in anatomy class?
I was thinking about the rectus abdominis while I ate a chocolate plate.

Break the tendinous intersections, then the superior and inferior epigastric arteries are injured.

The horizontal concaves are tendinous intersections.

Therefore, I don't like to break them.
The vertical edge is the linea semilunaris, where the thoracoabdominal nerves pass.

I don’t even touch the linea semilunaris to save the nerves.

The linea alba, that is the vertical concave, is safe for them. Cut this and let’s eat!

Such median incision is carried out to open peritoneal cavity.
I saw a medical student who went to a private hospital for treatment. Elongated collateral ligament.

I met a doctor because interphalangeal joint was strained.

She tried to show off that she is a medical student.

What is wrong with you?

If he realizes that I am in a medical school, then he will do something special.
Therefore, she used an anatomical term.

My interpharyngeal joint is hurt.

It is one of good reasons to learn anatomy.

Interpharyngeal?

This is not what I was looking for.

However, it caused her to lose more.

Where did you learn anatomy?

If you are my junior, you’ll be killed.
Answer 1: The drowsiness is due to the existence of gastropalpebral ligament.

Eyelids go down along with the stomach. Gravity matters.

Answer 2: Anatomical position is sitting upright during the anatomy class.

Good posture and attitude are the real anatomical position.
Responses from viewers have been favorable.

I could laugh at comical situations after acquisition of anatomy knowledge.

I recognized how anatomy enriches me.
I read the quote ‘A large river flows far.’ in a philosophy book.

This is same with arteries. If I follow the thick arteries from heart, they will lead me to the toes which are the farthest from the heart.

Aorta is thicker than its branches; external iliac artery is thicker than internal iliac artery.
Thick arteries get to toes.

Femoral artery

Anterior tibial artery

Popliteal artery

Dorsalis pedis artery

Or if I go along the posterior tibial artery and lateral plantar artery, I will arrive at toes as well.

Philosophy

Philosophy has something to do with anatomy.
(Continuing) I realized that when we enjoy alcohol, the pronator teres and pronator quadratus are well used.

Pronation of forearm is for drinking alcohol, as well as for pouring alcohol into the glass.

Supination is not right in manner.

Only right pronator muscles will be hypertrophied.
A toast with full glasses makes lower sound,

Lower tone

that with empty glasses makes higher sound.

Higher tone

Xylophone can be made up with glasses.

We can communicate how much to pour with the music scale.

Do Re Si Do

How much?

Always lower do! Keep pronating!
Comic strips could be used to recruit students.

Few graduating medical students specialize in anatomy.

Anatomists should look happy... so as to recruit medical students.

I will enjoy good car and good suit in medical school.

You look happy definitely.
While viewing an electron microscope picture of synapse, I put presynaptic part on postsynaptic part.

If put upside-down?

It would seem hard for neurotransmitter to climb against gravity. So it looks like stimulation won’t be transmitted.
I bought Korean traditional costume.

I chose two colors as they looked familiar. Why did those?

It’s because I observed two colors repeatedly in histology practice.

Purple (Hematoxylin dye)

Pink (Eosin dye)
There are five steps in mitosis, which have memorizing tip.

Interphase
Prophase
Metaphase
Anaphase
Telophase

I Prefer My Anatomy Teacher, which can be shortened as Anatophil.

It is annoying that Dr. Anatophil tells me to like him.
How do comic strips help you?

- Memorize anatomy contents
- Memorize clinical contents
- Assume attitude toward anatomy
- Assume attitude toward medicine
- Decide specialty of doctor
- Enjoy with medical persons
- Enjoy with non-medical persons
Jokes in comic strips are classified.

- **Clean** for children
- **Medium** for grownups
- **Dirty** for guys
What are the drawbacks of comic strips?

Some dirty jokes are sexually harassing woman. Two-dimensional caricatures do not satisfy. Episodes are not arranged systemically. Many episodes are not related with anatomy.

Opinions are being reflected on.
Comic strips are exhibited in Korean science museum.
Comic strips are involved in Korean anatomy textbook.
Comic strips are serially published in international science journal (J Acupunct Meridian Stud).
Anatomy comic strips (300 episodes) and science comic strips (83 episodes) are accessible freely on homepage (anatomy.co.kr).

Dr. Anatophil (First 100 episodes, Second 100 episodes, Third 100 episodes)
Dr. Anatophil (Article)
Dr. Scifun (83 episodes)
Creation and educational use of anatomy comic strips are ongoing.

Ethyl alcohol looks like a dog. That’s why we become a dog after drinking.

It makes sense.