imex
MEDICALTECHNOLOGY

Excellence in Imaging

Mobile Hybrid CT

(3-in-1, RAD/FLO/CT)

DeteCT

NOV. 2022

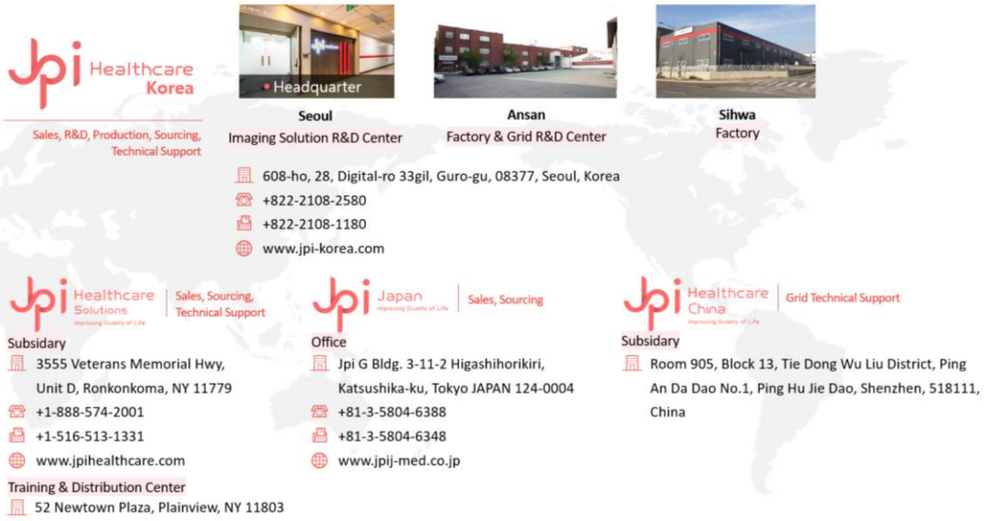
Since 1980

Jpi Healthcare

Since our establishment in 1980, JPI Healthcare's mission is to become a total imaging solution provider. JPI healthcare has been contributing to the improvement of the quality of healthcare market by developing innovative technologies. We are also working closely with more than 500 customers include TOP10 brands over the world. We cooperate with them to develop the most unique and innovative x-ray systems to lead the market

- **No.1 market share in X-ray grid**
- **Next generation smart X-ray systems(Digital Tomosynthesis, Mobile Hybrid CT)**

Operating overseas subsidiaries in the US (New York), Japan (Tokyo), and China (Shenzhen) as well as our Korean headquarters



Overseas network with more than 500 clients in 77 countries

Past – Present – Future of JPI Healthcare Co., Ltd. /

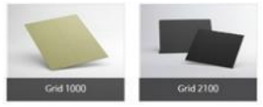
GRID – Full Product Line (AL, Fiber, Carbon)

+

Smart Digital Total Imaging Solutions

Past(Stability)

- X-ray components



Present(Growth)

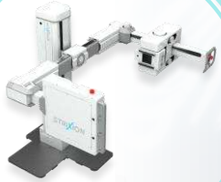
- X-ray System Software

Future(Expansion)

- Expand to NDT, Security market

- Smart digital X-ray systems
  - Digital Tomosynthesis System
  - Mobile hybrid CT
  - Fluoroscopy

DynaVue DUO



STRIXION

DeteCT

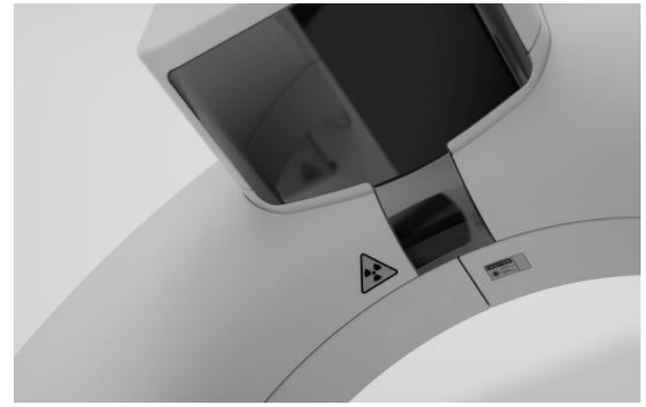
Total Imaging Solution Provider

Artificial intelligence, SW, next-generation advanced medical imaging system

DeteCT

- **Compact Size, Large Bore**

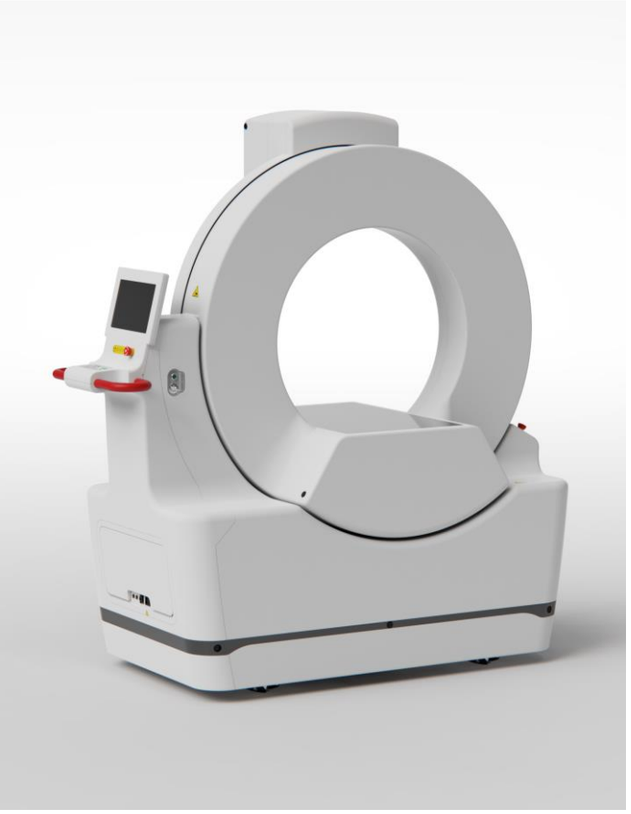
- **Mobility**

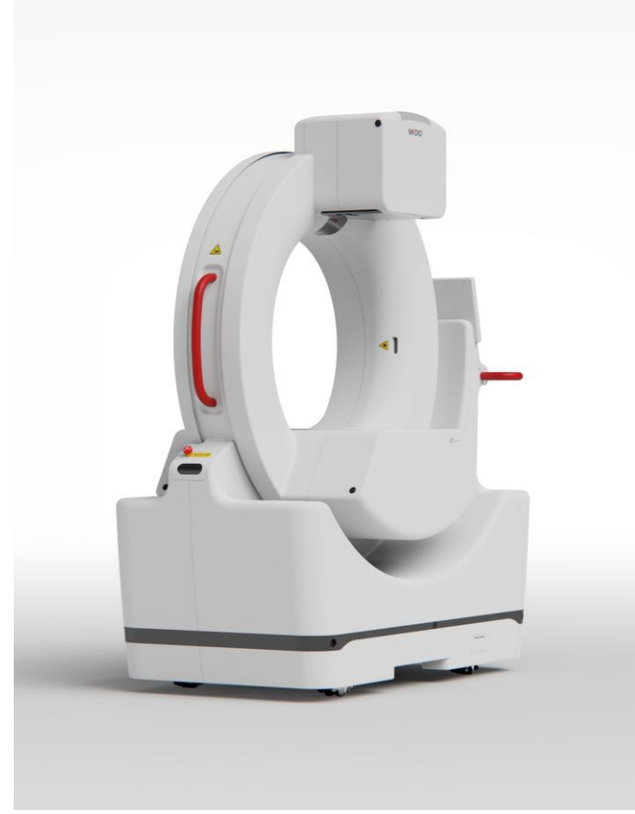


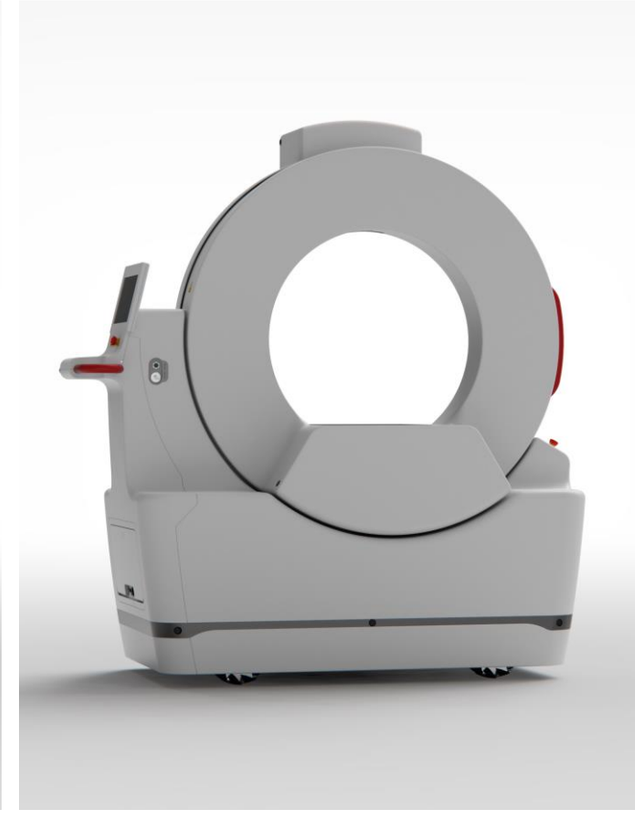
- **Hybrid (3–in–1)**

- **Usability**

Looking Toward the Future of CT Technology



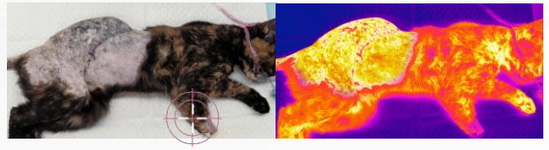




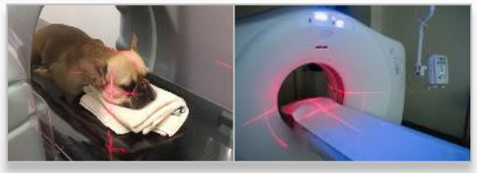
DeteCT brings powerful and innovative features

Features /

Vision/Thermal camera &
Thickness Measurement



Positioning guide Laser



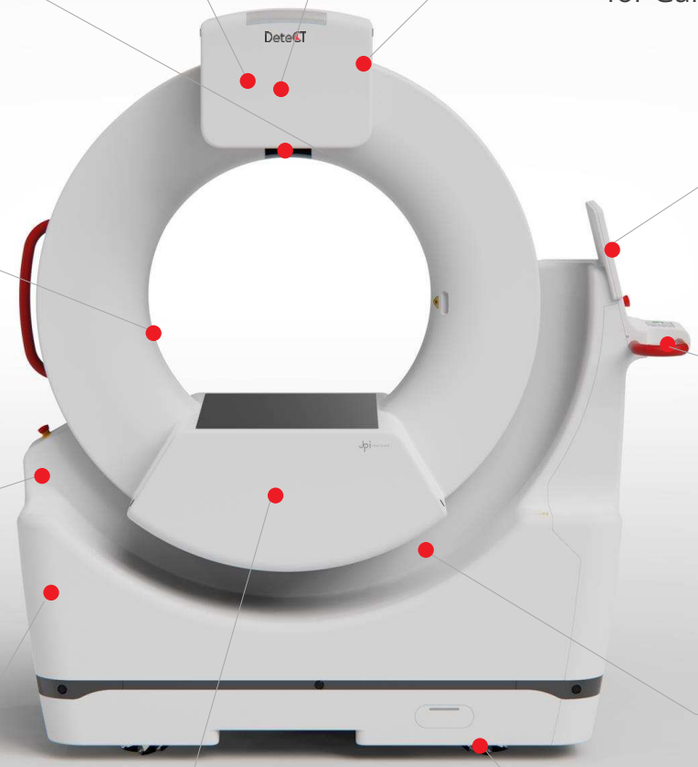
Vision camera – Front view

Anti-collision sensor for mobility

17”x17” Dynamic FPD

10kW X-ray

Auto Collimator &
Filter Changer

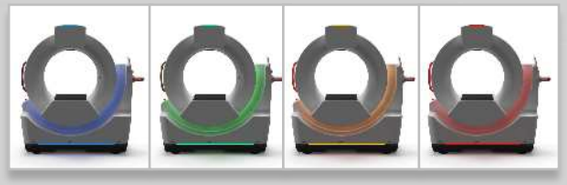


Collision Avoidance Systems
for Gantry Rotation

Control Touch Panel UX/UI

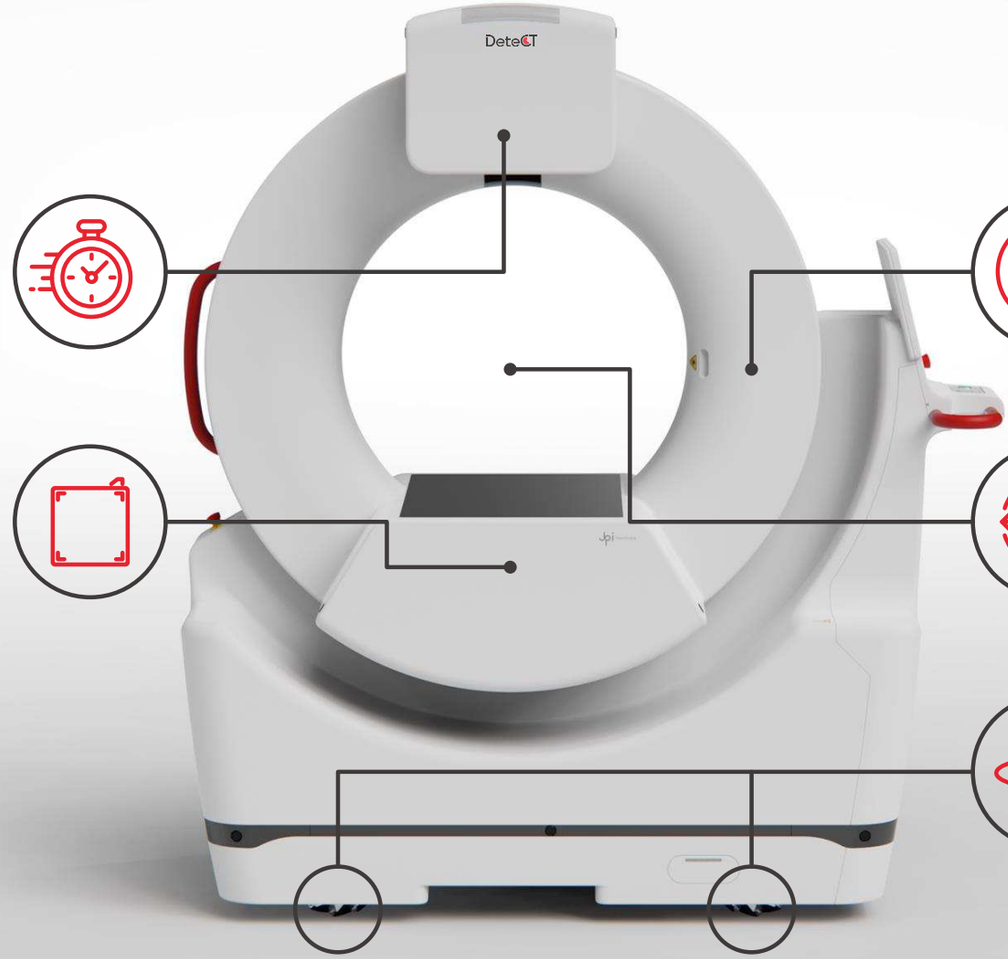
Handle bar
- Power assisted mobile wheels

LED indicator



Mecanum wheels

Features /



Fast Scan
Average 12 sec.

Large F0V
43x43
Imaging Area

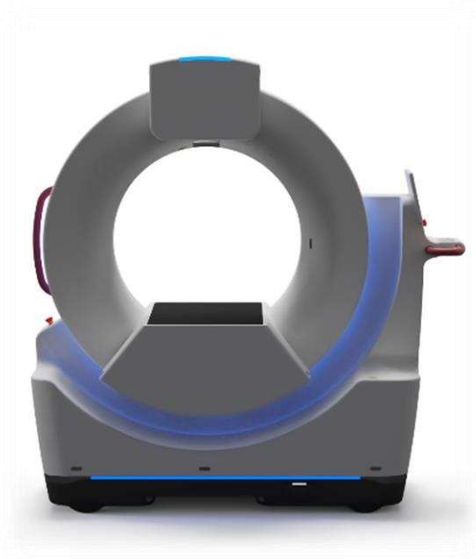
Slip Ring
Smooth Rotation

Large Bore
750mm(29.5inch)
Bore Diameter

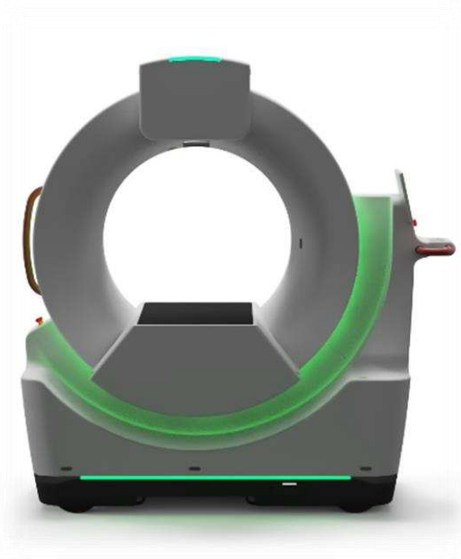
Efficient
Easy Movement /
Rotation in Tight Space

Features /

LED Status Indicators

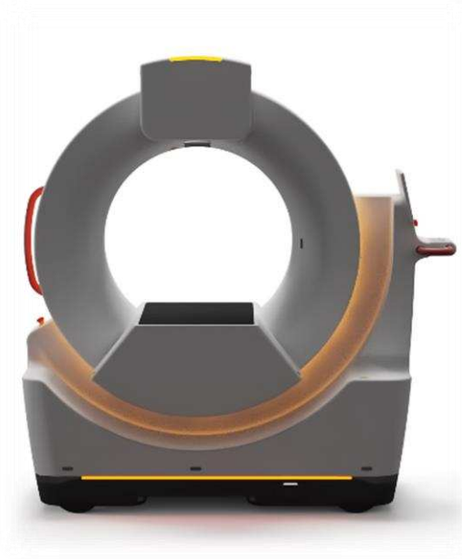


Normal : Blue



Prepare : Green

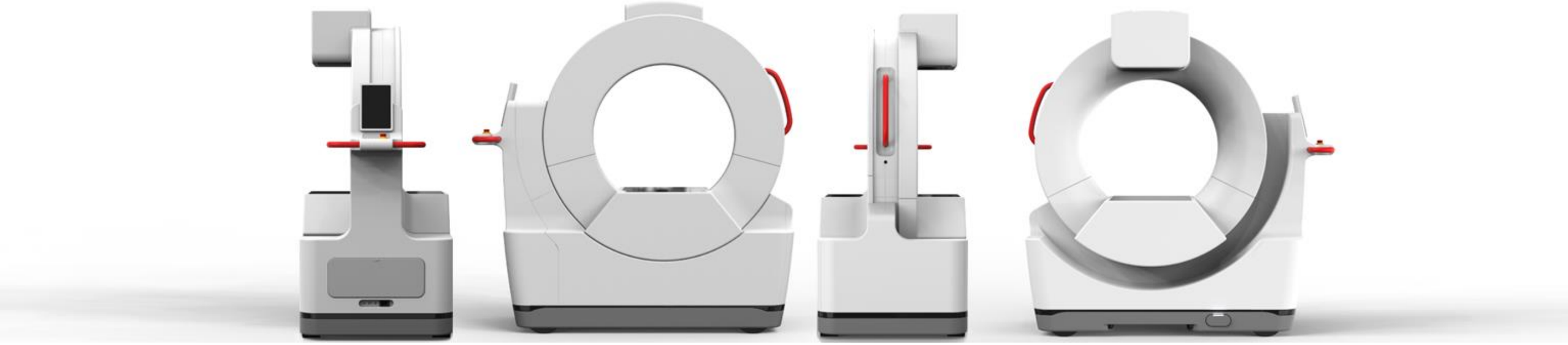
Error : Red



Exposure : Yellow

Features /

Low Dose Imaging Solution | **IGZO** Sensor | **Fast** Acquisition & Reconstruction, 3D Viewer



140 micron Pixel Pitch

- Full-diagnostic x-ray
- Fluoroscopy

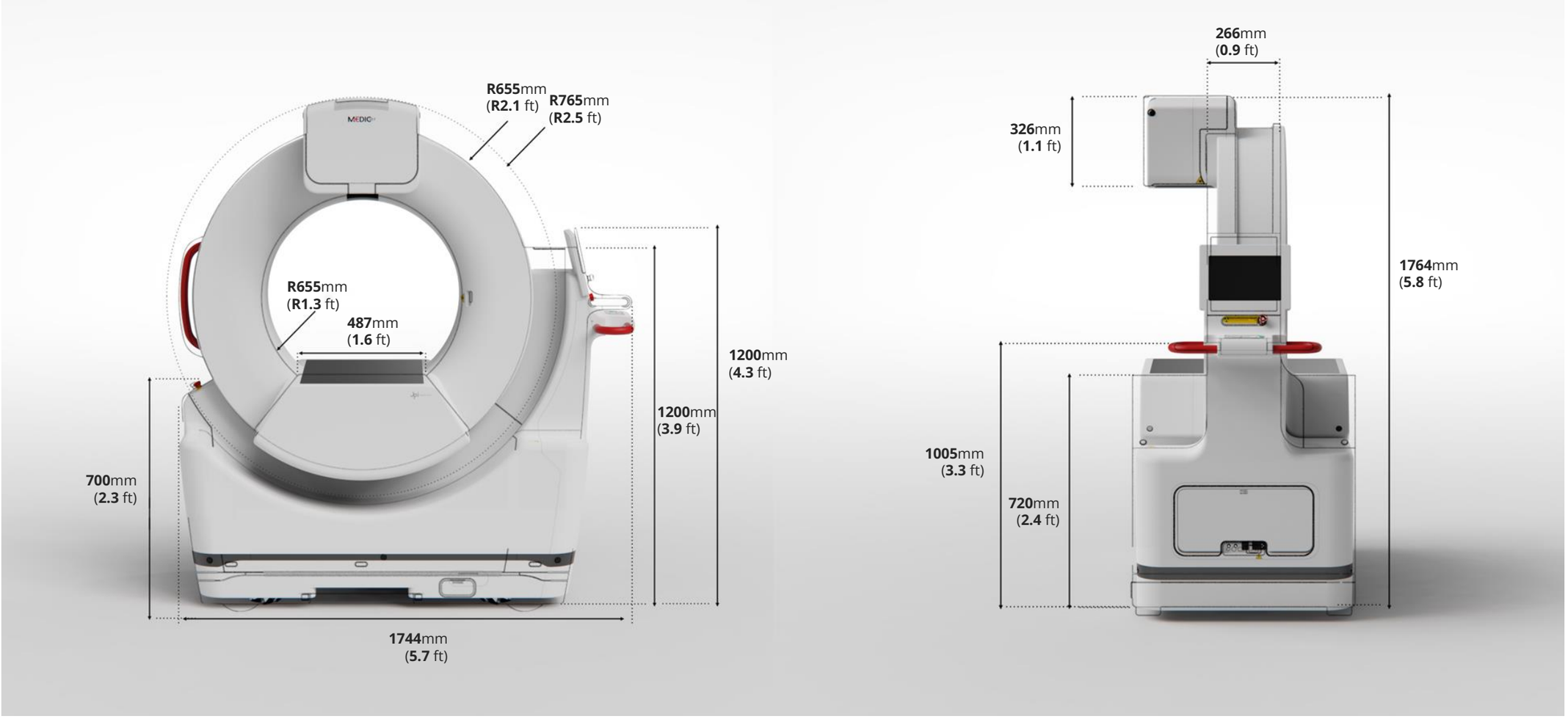
430x430mm (17”x17”) Sensor Size

- Computed tomography (CT)
- High-definition images

16Bit Large Area Dynamic Sensor

- Ultra low-dose
- High efficiency GRID

Dimensions /

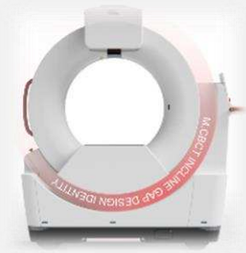

R655mm
(R2.1 ft)
R765mm
(R2.5 ft)
R655mm
(R1.3 ft)
487mm
(1.6 ft)
1200mm
(4.3 ft)
1200mm
(3.9 ft)
700mm
(2.3 ft)
1744mm
(5.7 ft)
266mm
(0.9 ft)
326mm
(1.1 ft)
1764mm
(5.8 ft)
1005mm
(3.3 ft)
720mm
(2.4 ft)

Technical specifications /

1	**Power**	RAD	10kW (Inverter 15kW)
		FLO	3.5kW
		CT	4.8kW
2	**kVP**		40 ~ 120kV(1kV step)
3	**mA**	RAD	1mA ~ 200mA
		FLO	1mA ~ 20mA
		CT	1mA ~ 40mA
4	**Exposure**	RAD	200msec
		FLO	10min
		CT	20s
5	**X-ray Tube**	Focal spot	0.6 @ RAD/CT
		FLO	0.3 @ FLO
		Target Angle	16°
6	**Monoblock**	Heat Capacity	105kJ
7	**Collimator**	Type	Double slit, Automatic
		Initial Position	0cm * 0cm
		Max Position	43cm * 43cm
		Inherent filtration	1.0mm Al
		LED Lamp	LED/ Duration 30s

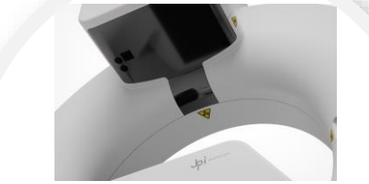
8	**Detector**	Detector Technology	IGZO TFT
		Pixel resolution	3072 * 3072
		Scintillator	Direct Deposit CsI:TI
		Pixel Pitch	140μm
		RAD	1x1: 3072 x 3072
		Fluoroscopy/CT	1x1: 3072 x 3072(11fps) 2x2: 1536 x 1536(30fps)
		DQE	≥ 70% @ 0 lp/mm ≥ 24% @ 3 lp/mm
		MTF	1 lp/mm : ≥ 70% 2 lp/mm : ≥ 40% 3 lp/mm : ≥ 23%
		Lag	< 0.025% 1st frame
		Dimension	460 x 460 x 15 mm Cassette size (3.5kg)
		Active Image size	427.8 * 427.8mm
		Bit depth	16bit
9	**Software Interface, DICOM Connectivity**	Software	Acquisition workstation with export capabilities to PACS and multiple viewing software
		Technical features	Image Acquisition, Viewer, Archive, Media Burning and Query
		Processing Tools / Acquisition Technique	MRP, MIP, Measurements, Slice Slab, Basic Volume Rendering / Single X-Ray images multiple exposures
		DICOM compatibility	DICOM 3.0 Standard
10	**CT Image Mode**	CT Scan Mode	-HR(High Resolution : Optimized for bone tissue analysis) -Normal -HQ (High Quality : Optimized for soft tissue analysis)
		FLO Acquisition Speed / Reconstruction Time	4 ~ 18 sec / Min 25sec
11	**DR Mode**	Resolution / Acquisition Speed / Pixel Size	0.14 mm (3.5lp/mm) / < 7 sec / 3072 x 3072
12	**FL Mode**	Acquisition Speed	10fps @ 3052 x 3052, 30fps @ 1516 x 1516

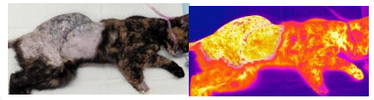
CBCT – comparison /

Company	Xoran	iCRco	Epica	Animage	JPI Healthcare
					
Product	vTRON	Claris XT	Vimago GT30 Pico	Fidex GT	**DeteCT**
FOV (Detector)	22cm x13cm	T.B.D 43cm x 43cm(140um, a-si)	30cm 17,5cm x 150cm	32cm 43cm x 43cm(139um, a-si)	**28cm x 28cm** **43cm x 43cm(IGZO)**
Price	$220K	95K	$200K ~ $270K	T.B.D	**T.B.D**
Bore Size	800mm	710mm	592mm	T.B.D	**750mm**
Remarks	CT	3-in-1(RAD, FLO,CBCT) The Specification seems incorrect in website X-ray power: 5kW	3-in-1(RAD, FLO,CBCT) Vimago HU Vimago HU Pico Vimago GT30 Vimago GT30 Pico	3-in-1(RAD, FLO,CBCT) FLO: 5 to 30 fps **X-ray power: 2kW**	**3-in-1(RAD, FLO,CBCT)**

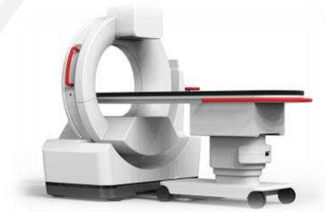
System Workflow /

Simple & Easy Operation



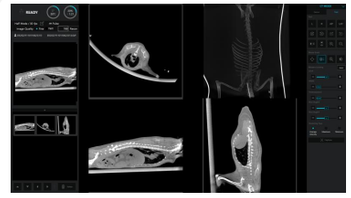


● Preparation

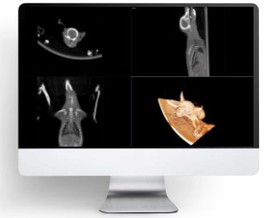


● Image Scan
(RAD/FLO/CT)

● Image Acquisition



● Image Processing
(CT-Reconstruction)



● Image Transfer to PACS

Software configuration

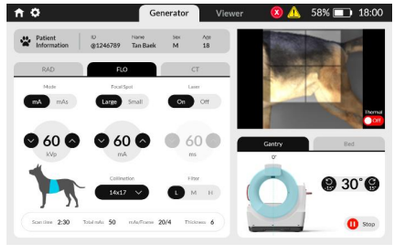
DeteCT

ExamVue CT suite

Radiography Exam

Main Software

+



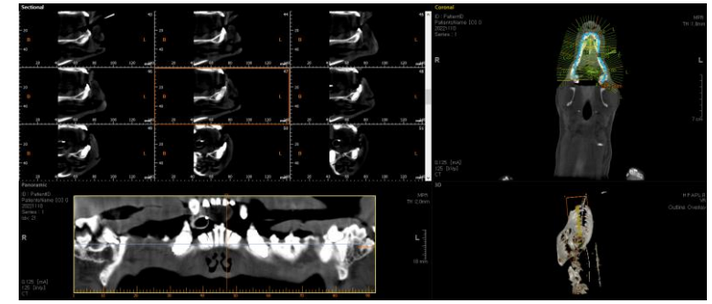
Control Software

DeteCT

Software

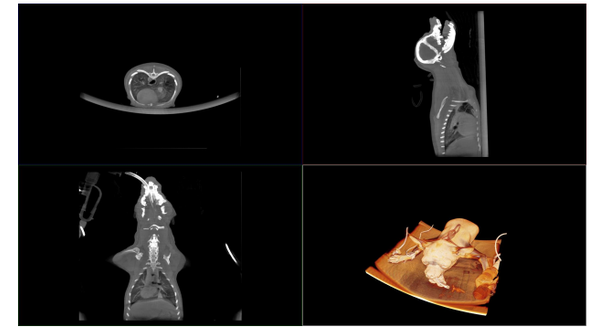
ExamVue 3D Viewer

3D Image Viewer



ExamVue 3D Recon

Image reconstruction



Main Software /

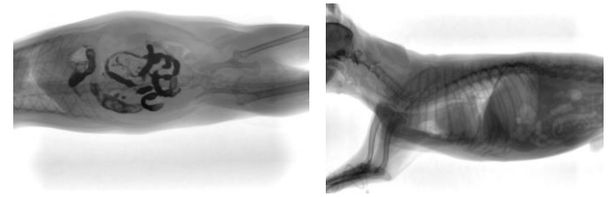
Highest Quality Hybrid CT/FL/DR Imaging

ExamVue CT suite Software is the main operating software for the DeteCT system. The software is designed to provide the image acquisition, image processing, hardware integration, and operational management functions for radiologists and radiology technicians. The software saves the digital X-ray images acquired in the Radiography, Fluoroscopy or Computed Tomography mode and processes the acquired image to achieve the best image quality. The software also manages patient information and store diagnostic images in an internal database. ExamVue CT suite software supports DICOM 3.0 protocol which allows compatibility with the network programs such as PACS and PMS.

• RAD

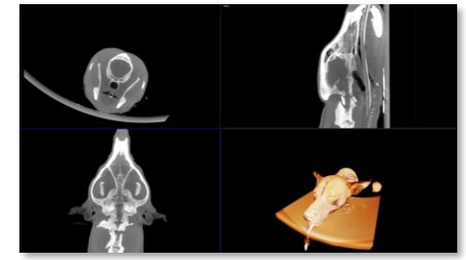
- Simple workflow
- Emergency exam
- Image Preview
- Fast image processing time (< 0.8 sec)
- Advanced Image processing
- Powerful measurement tools for veterinarians
- X-ray technique optimization using automatic measurements of patient thickness

• FLO



- Large field of view (43cm x 43cm)
- Frame rates 10 to 30 fps
- GPU based Real-time image processing
- DSA (Digital Subtraction Angiography)
- ABC (Auto Brightness control)
- Cine player
- Save Cine or DICOM

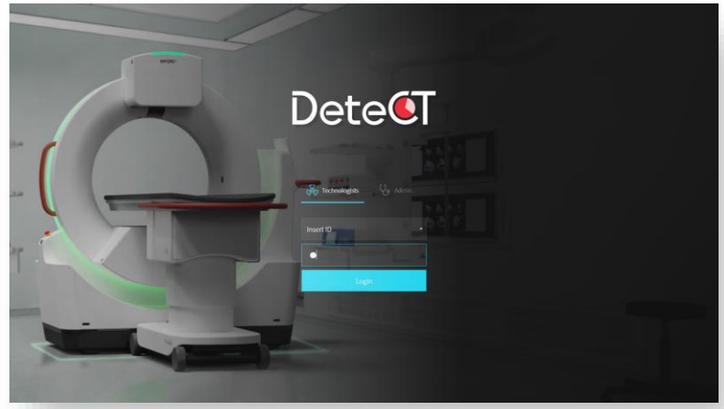
• CT



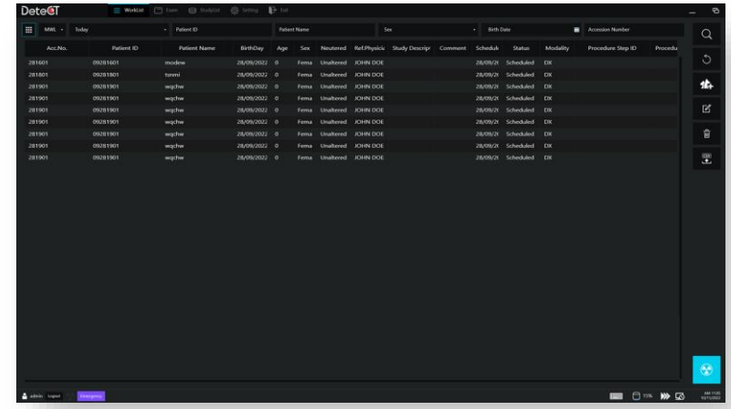
- Fast scan time (4 – 20 secs)
- Fast reconstruction time (25sec)
- High Image quality
- MPR 3D Viewer

Main Software – UI /

3 modes (3–in–1, RAD/FLO/CT)
UI Customized for Vet practices



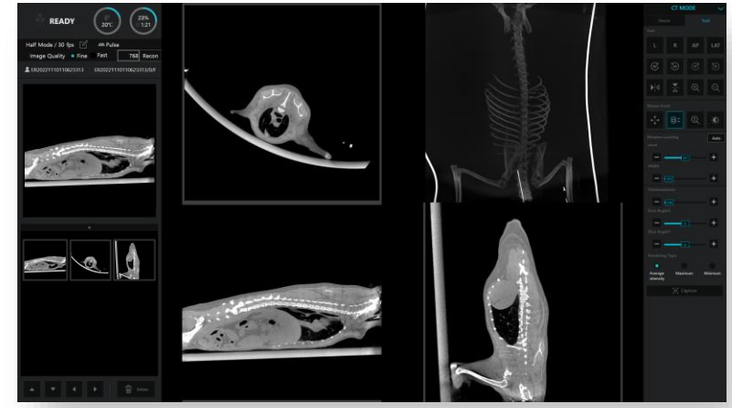
Log-In



Worklist

Radiography Exam

Fluoroscopy Exam

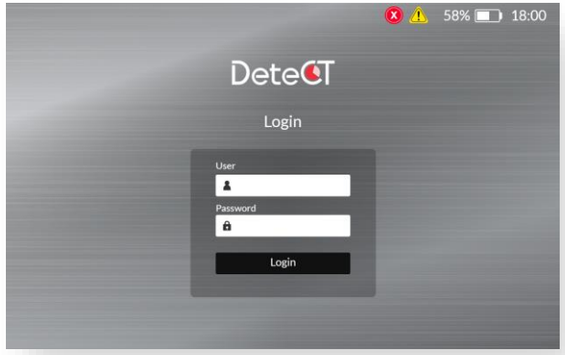


CT Exam

Hardware Control Software Work–Flow(Scan/Mobile) /

User–friendly UX and UI for easy operation

Step 1

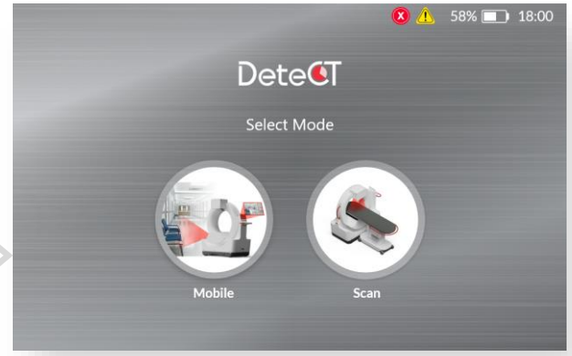


1. Log-in

Step 2

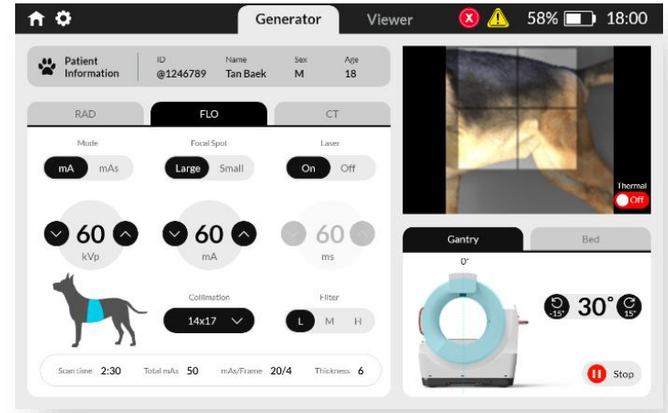
Different mode selection screen depending on account privileges.

ID

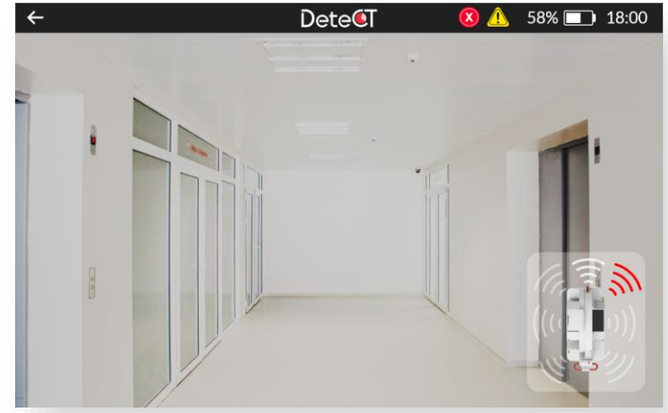


2. Select mode

Step 3

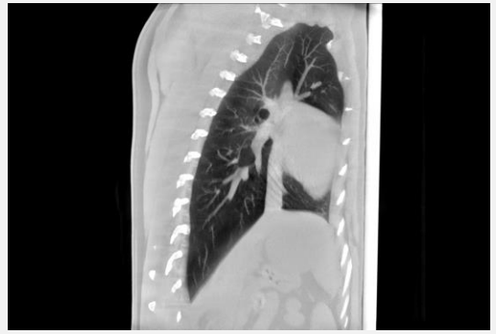


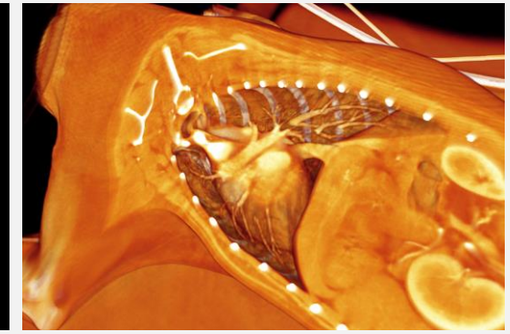
- Scan mode



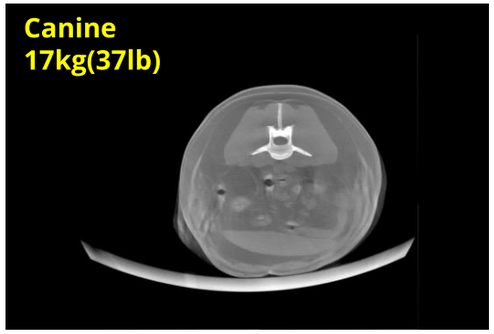
- Mobile mode

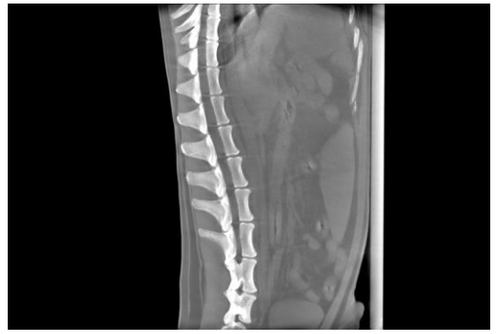
Diagnostics /

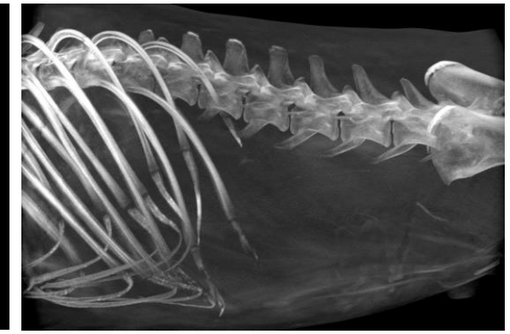




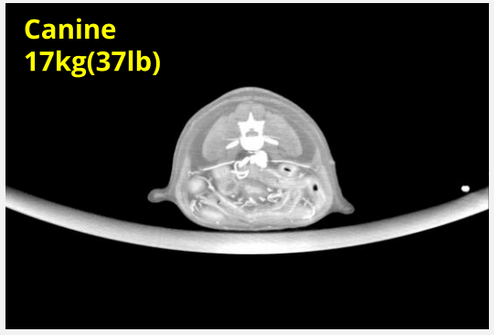
- Thorax Imaging

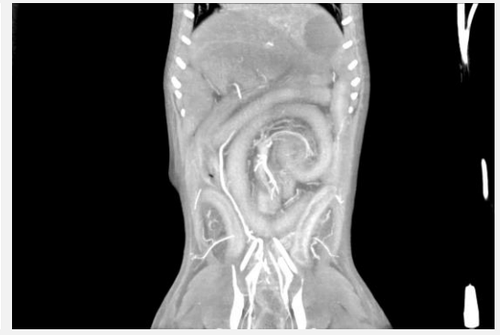
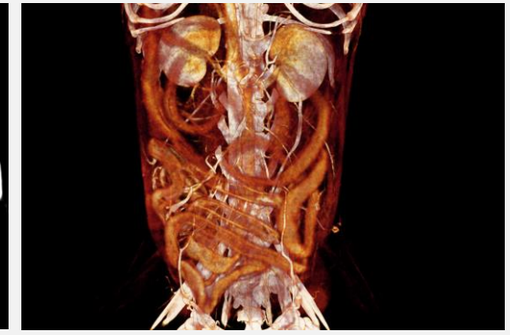






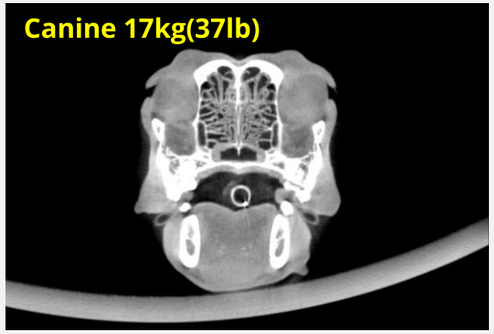
- Spine Imaging

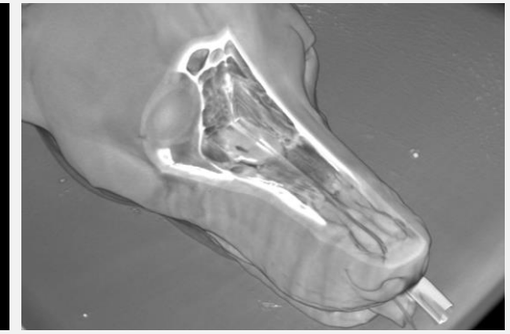


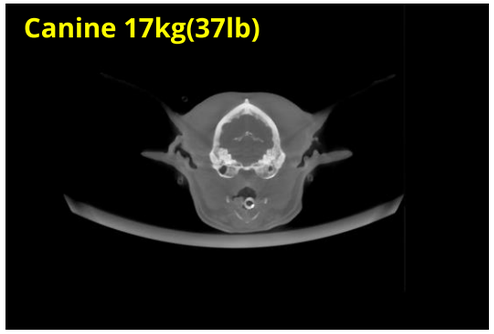
- Abdominal Imaging

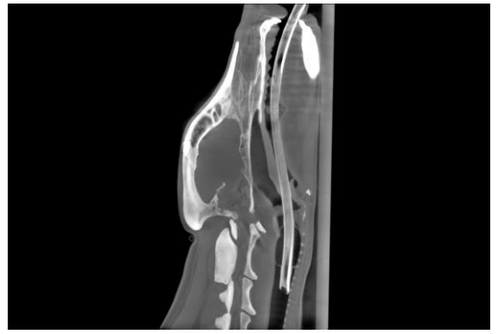
Diagnostics /

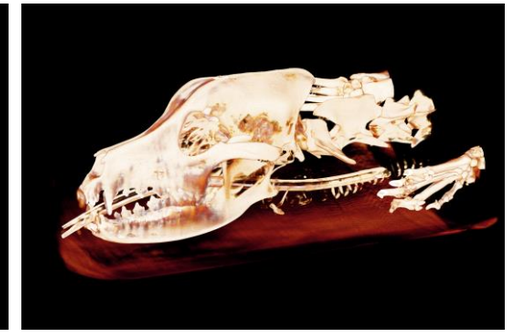




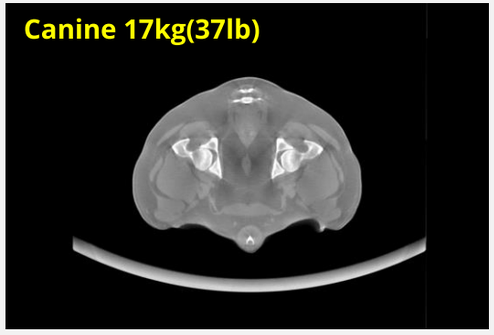
- Nasal Cavities Imaging

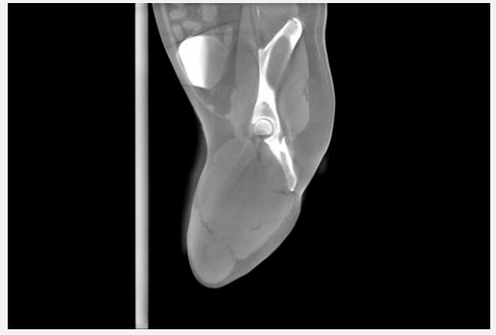
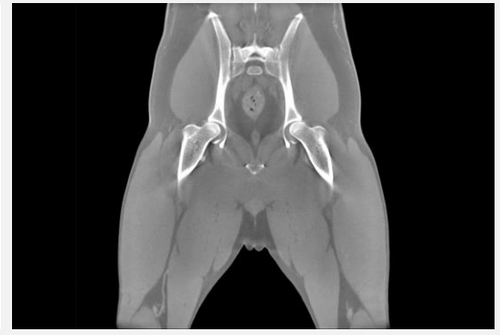






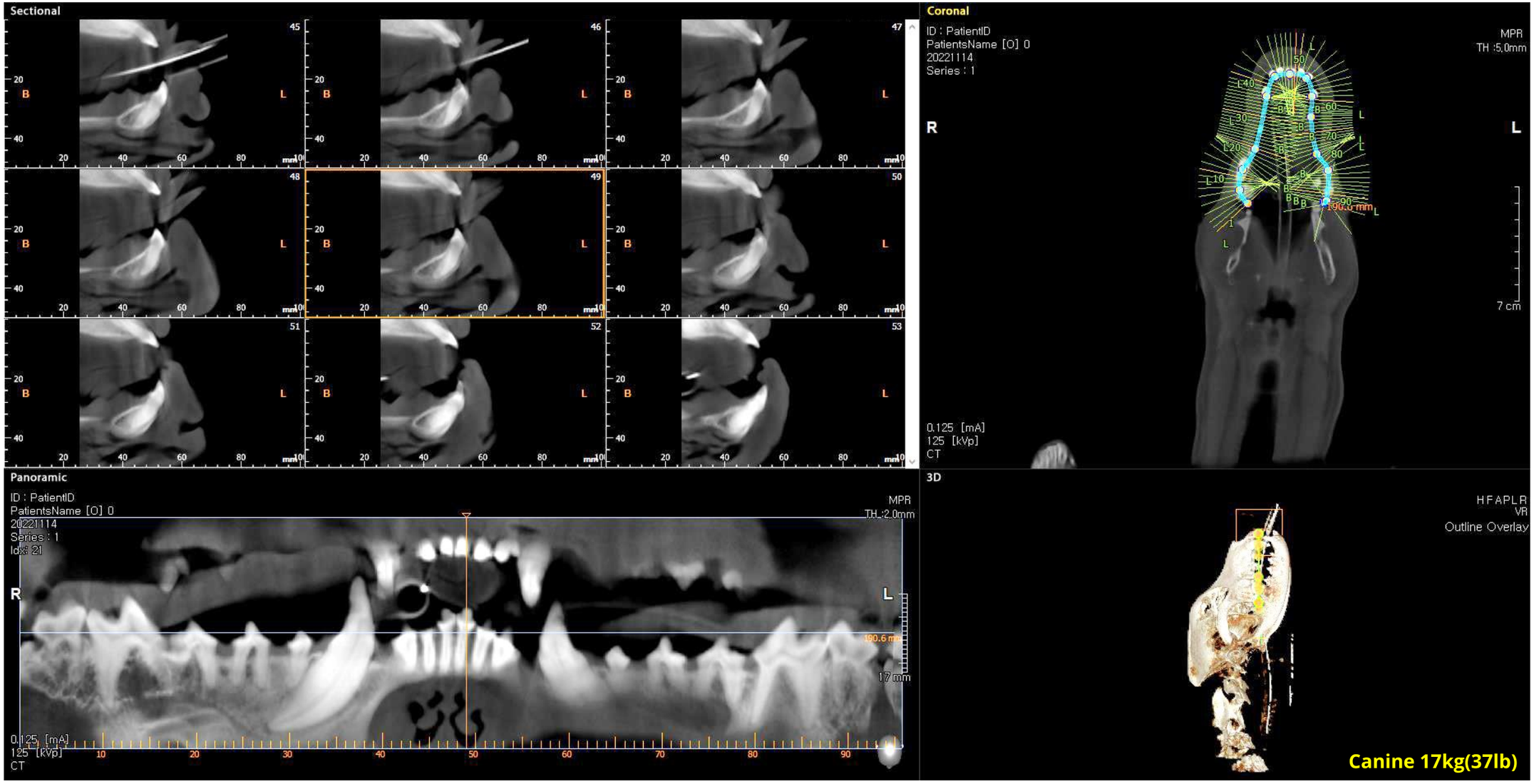
- Full Skull Imaging



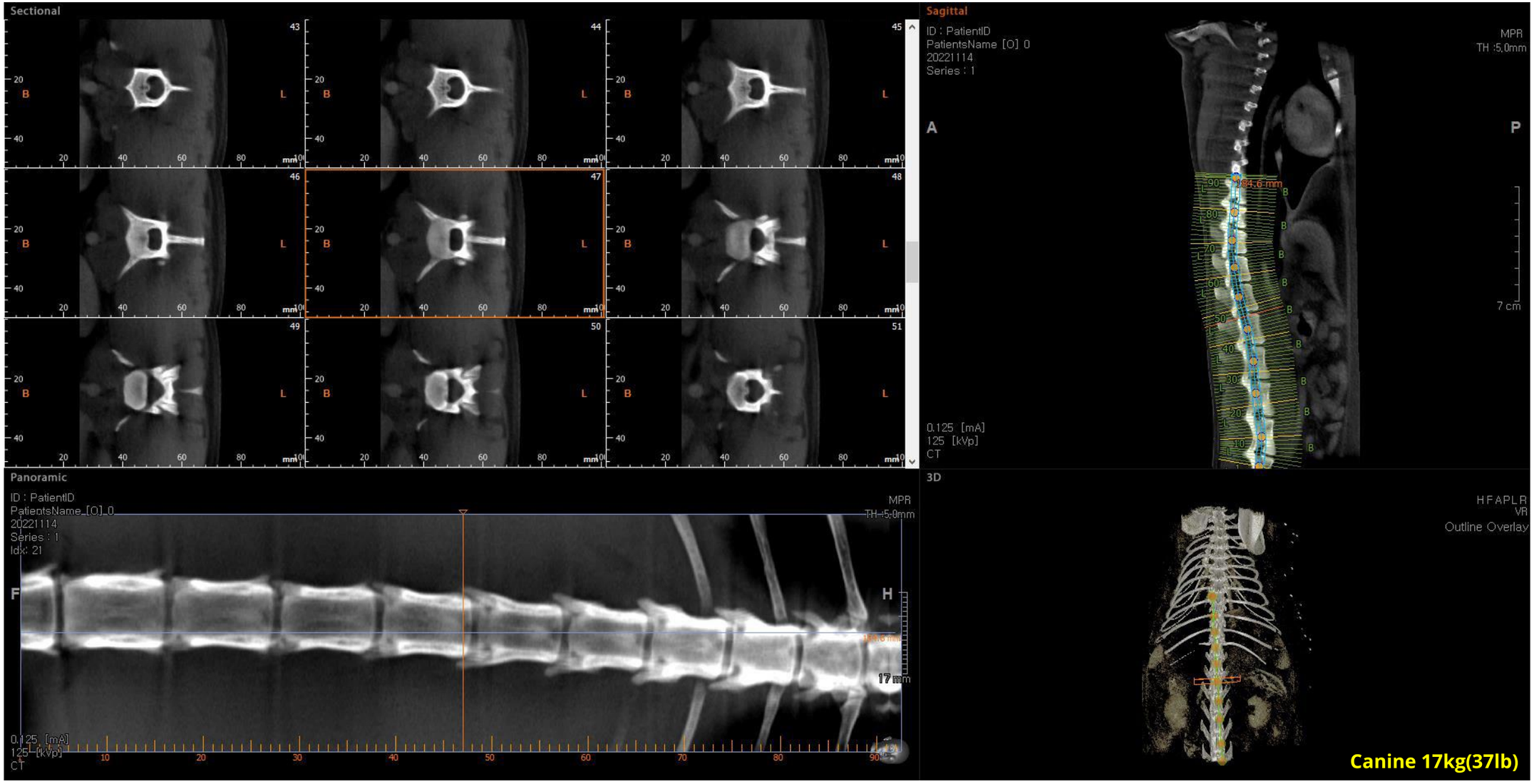
- Pelvis Imaging

Diagnostics /



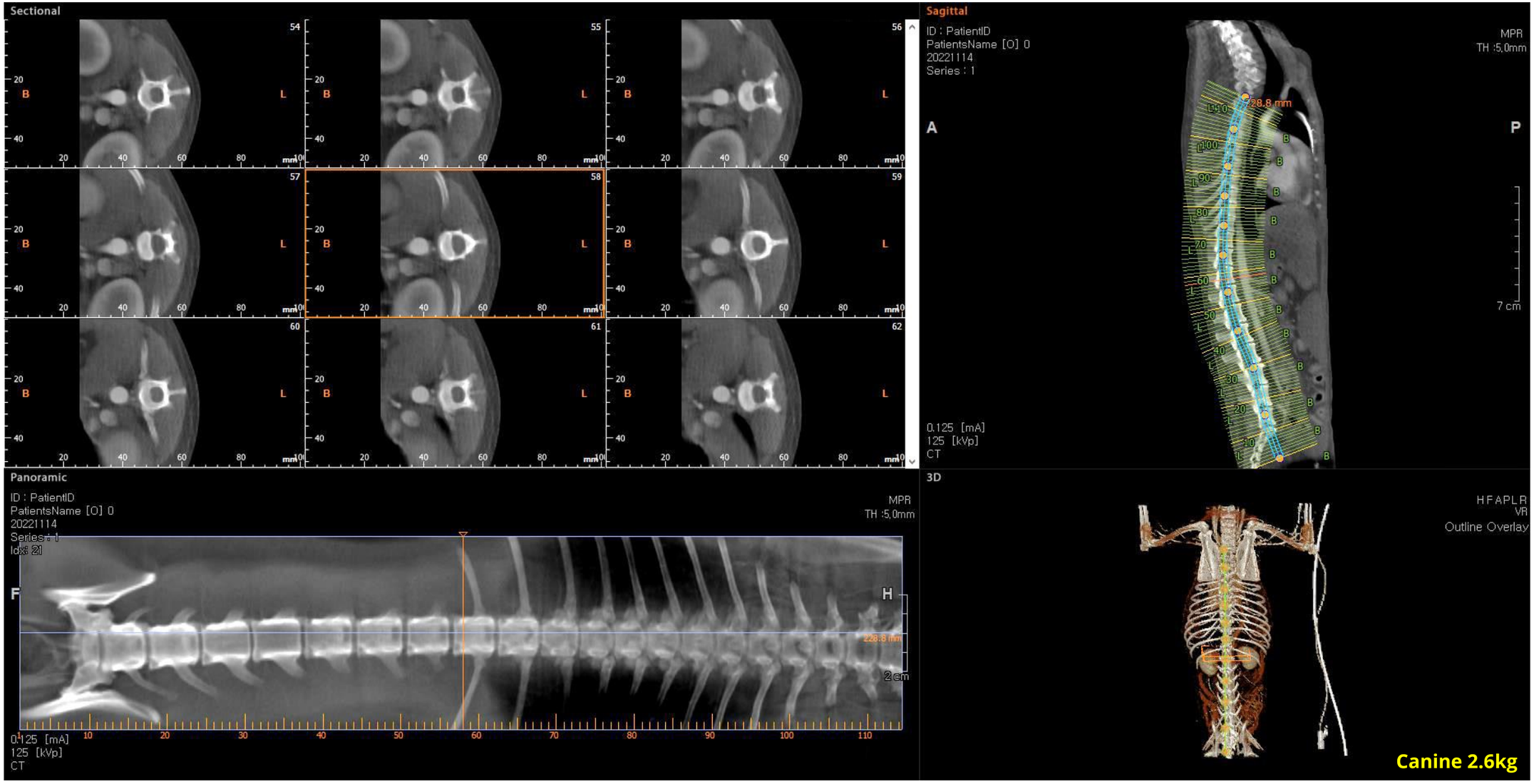
- Dental Imaging

Diagnostics /



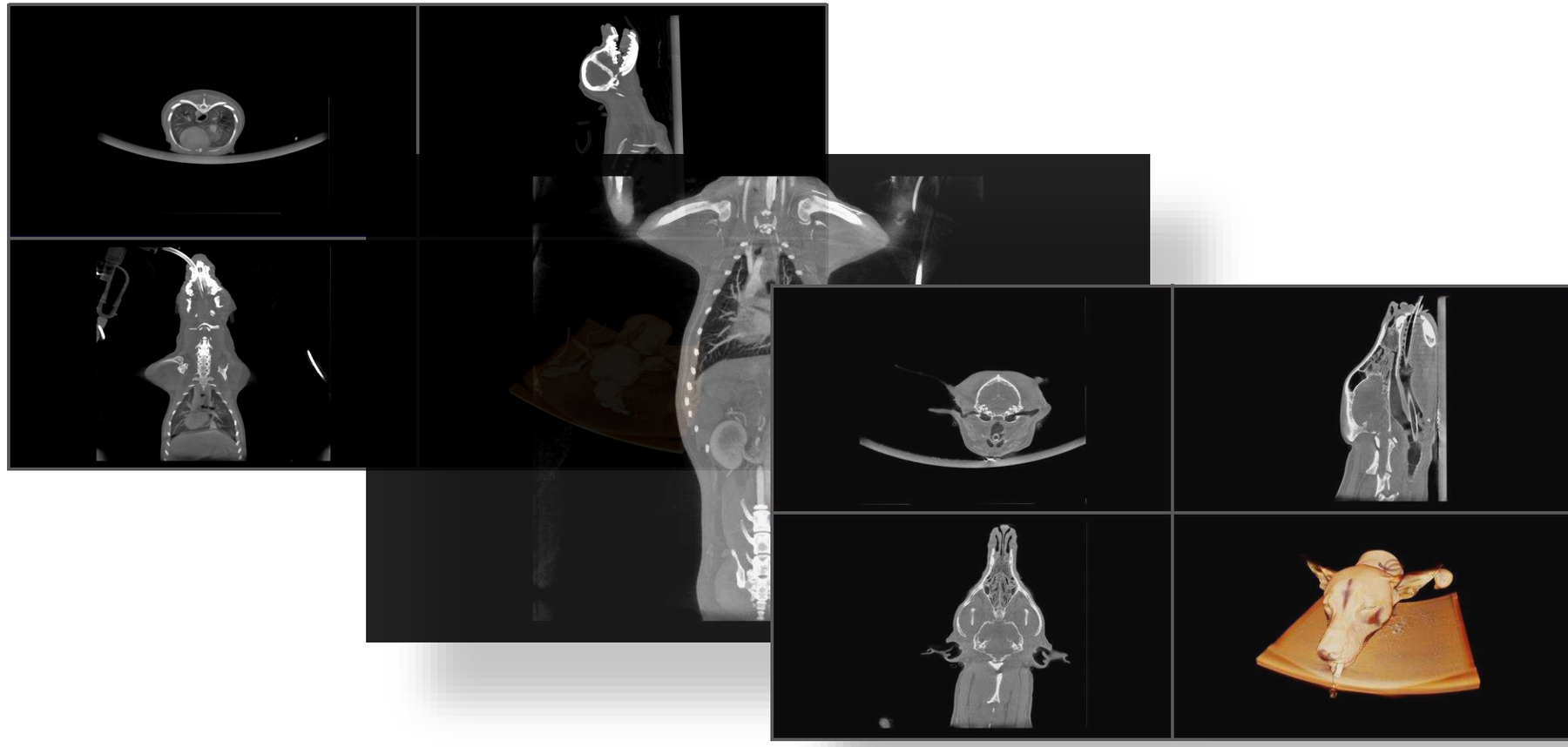
- Spine Imaging

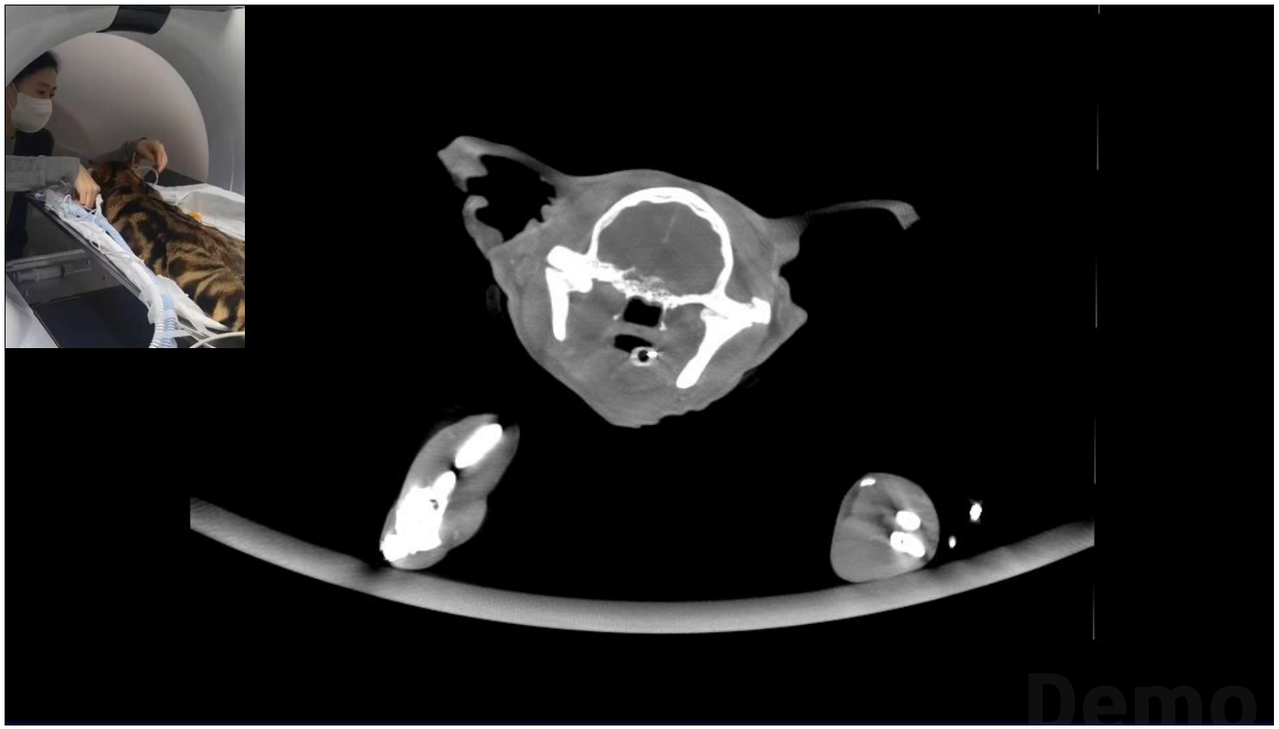
Diagnostics /



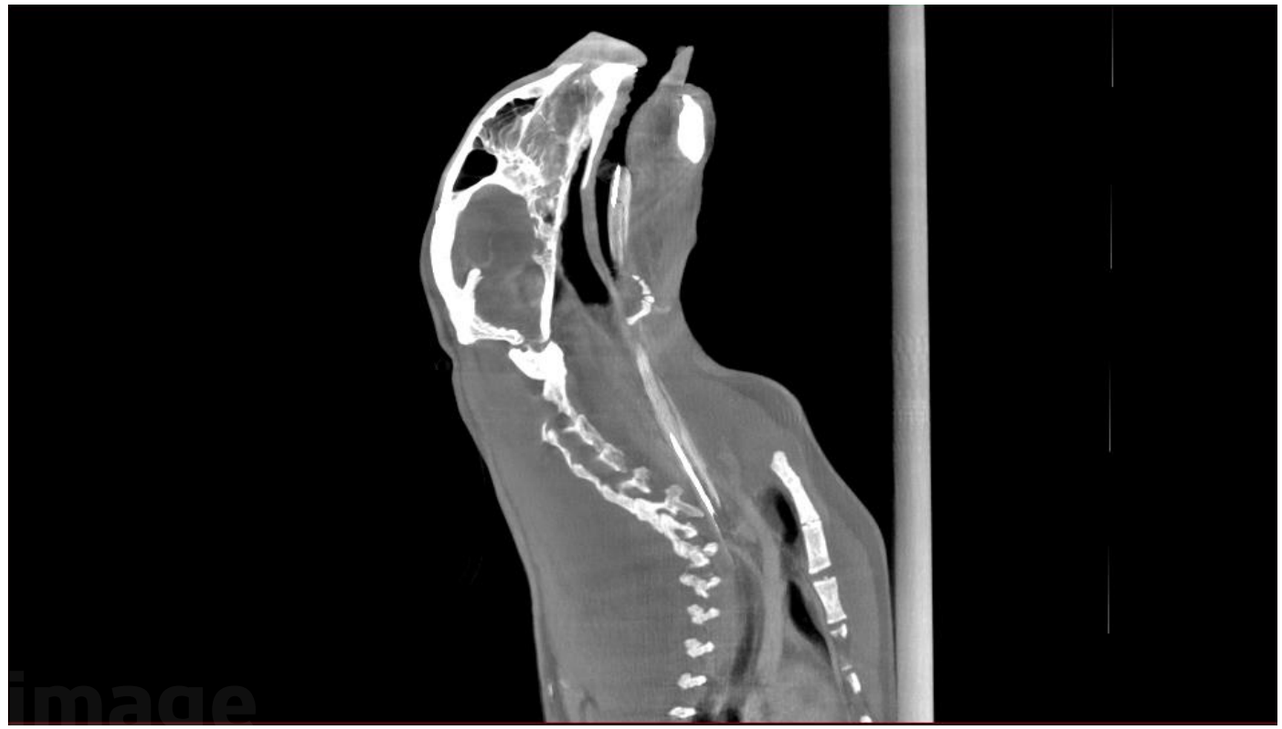
- Spine Imaging

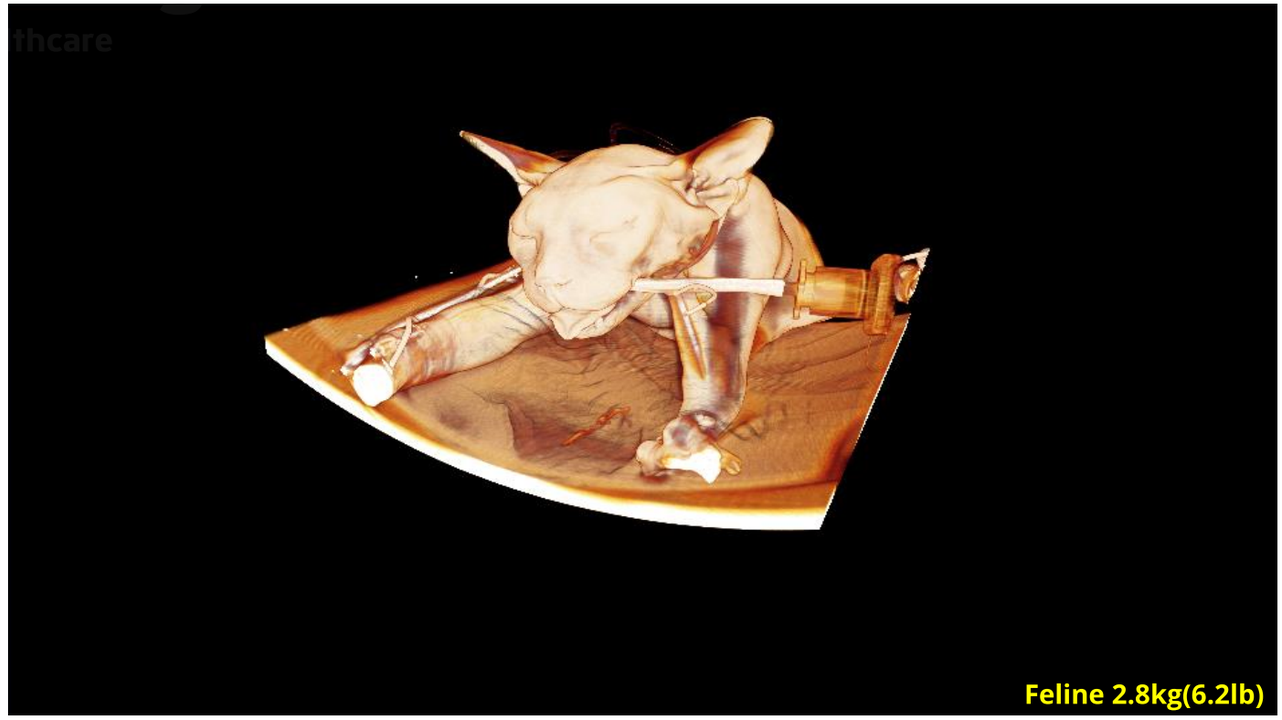
Image Gallery



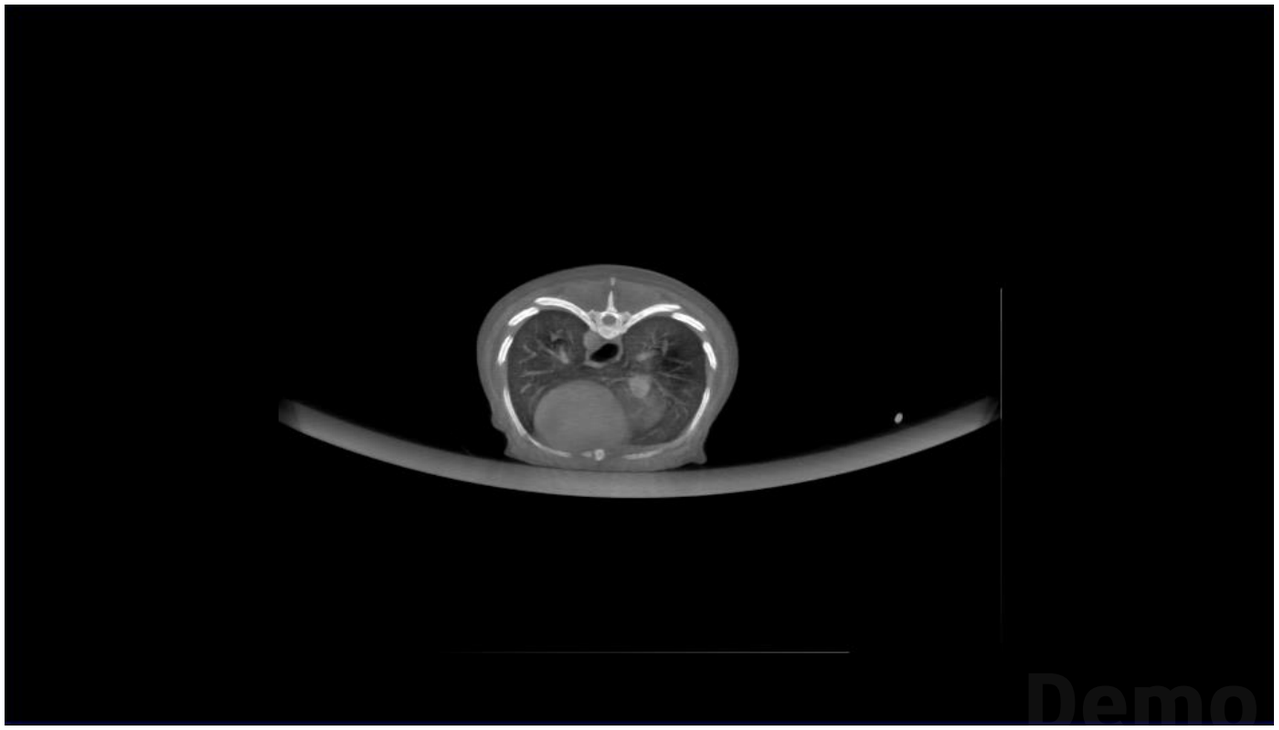


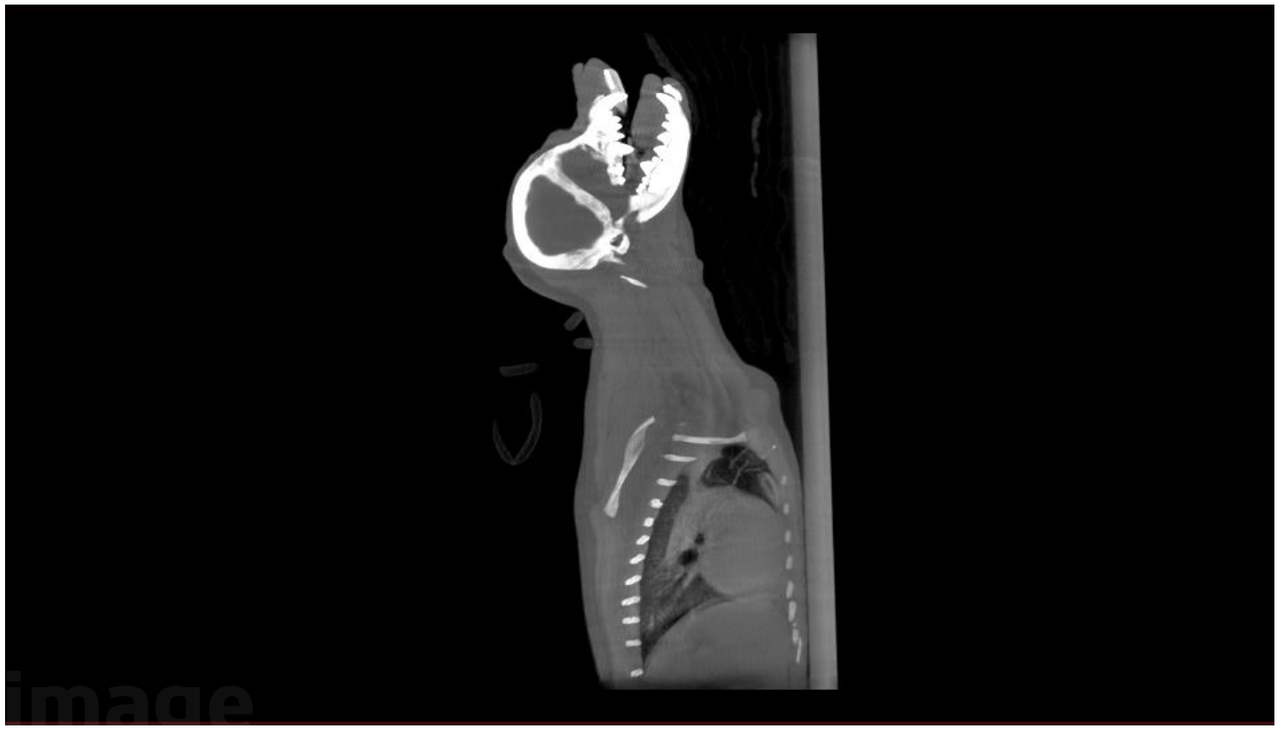
Demo image
JPI healthcare

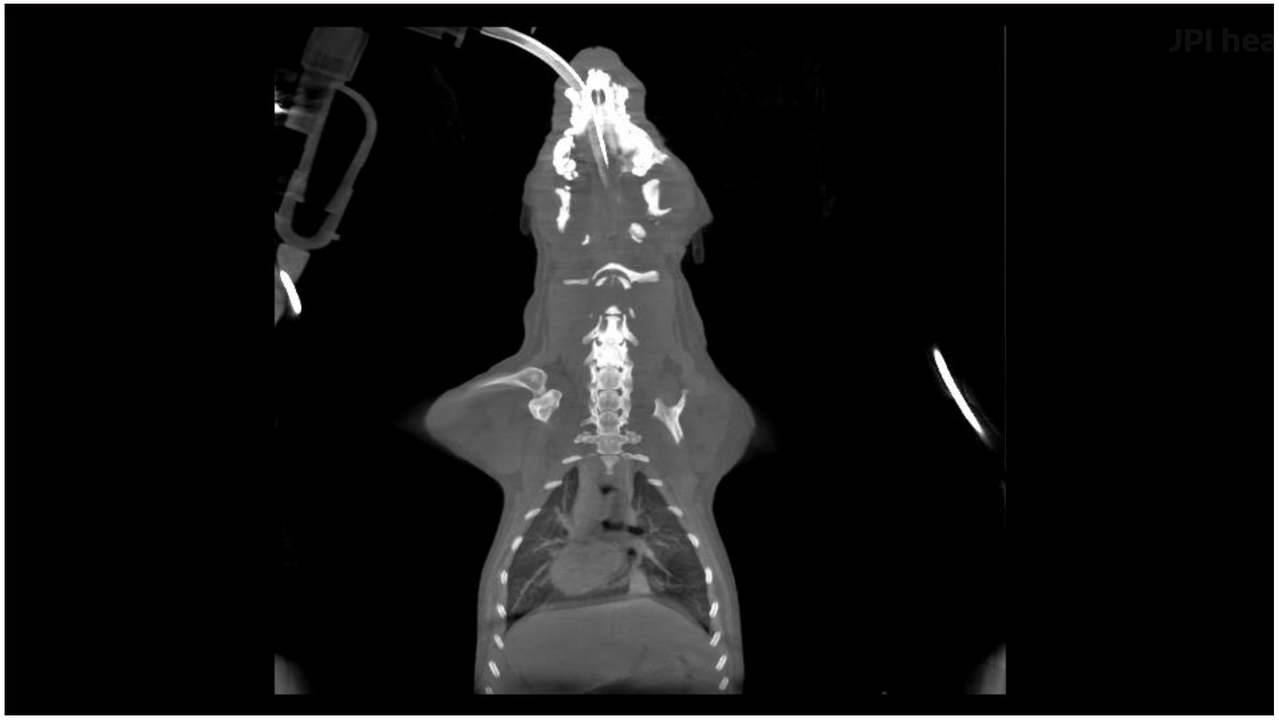


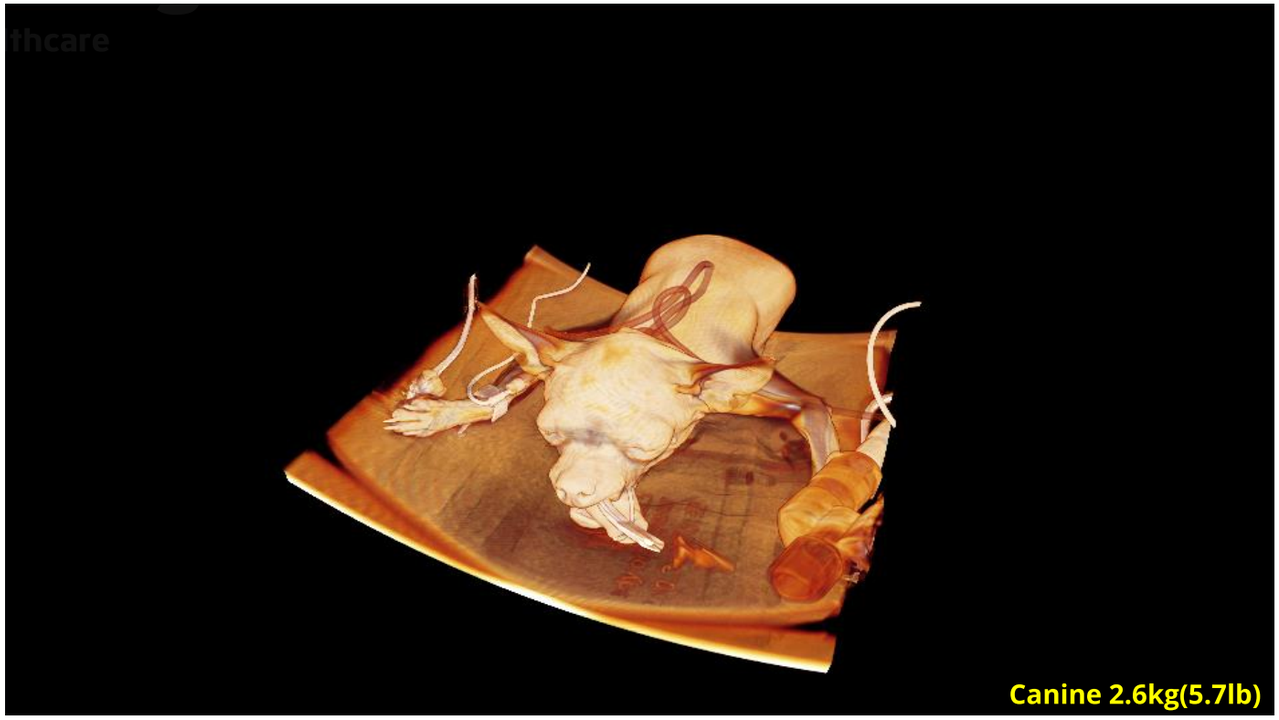


Feline 2.8kg(6.2lb)

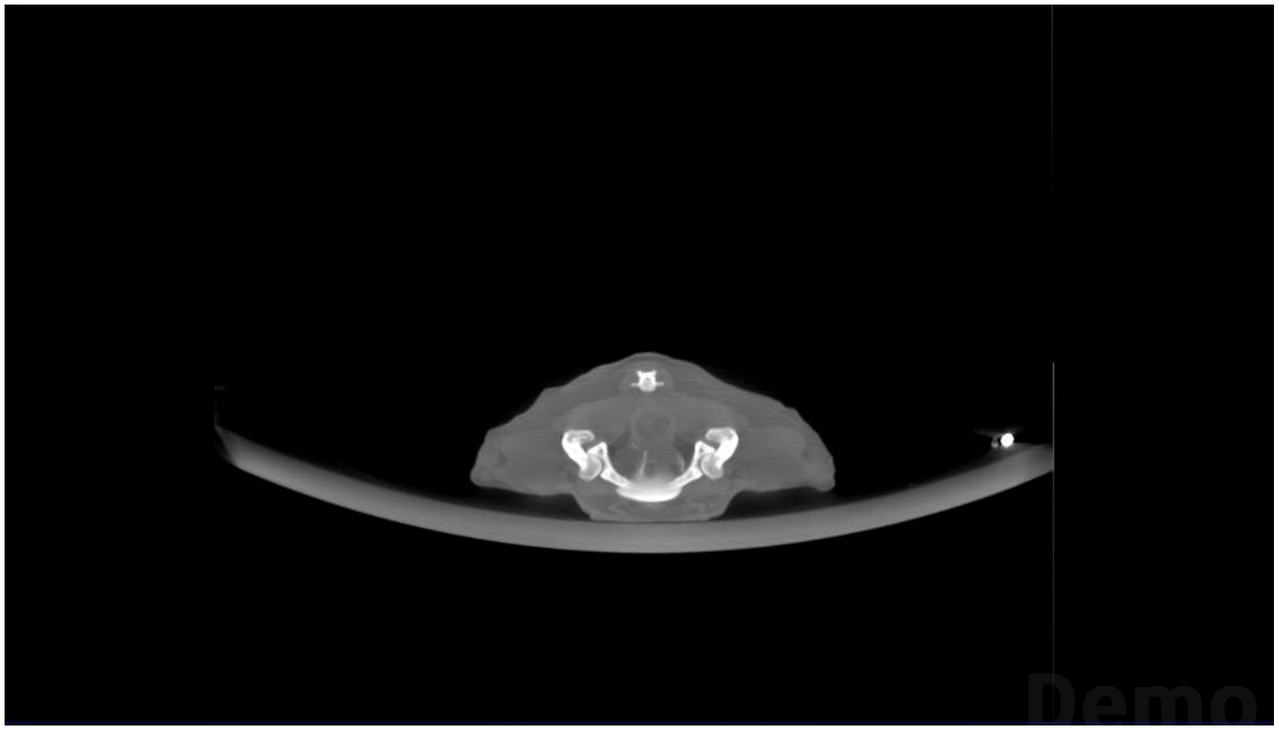


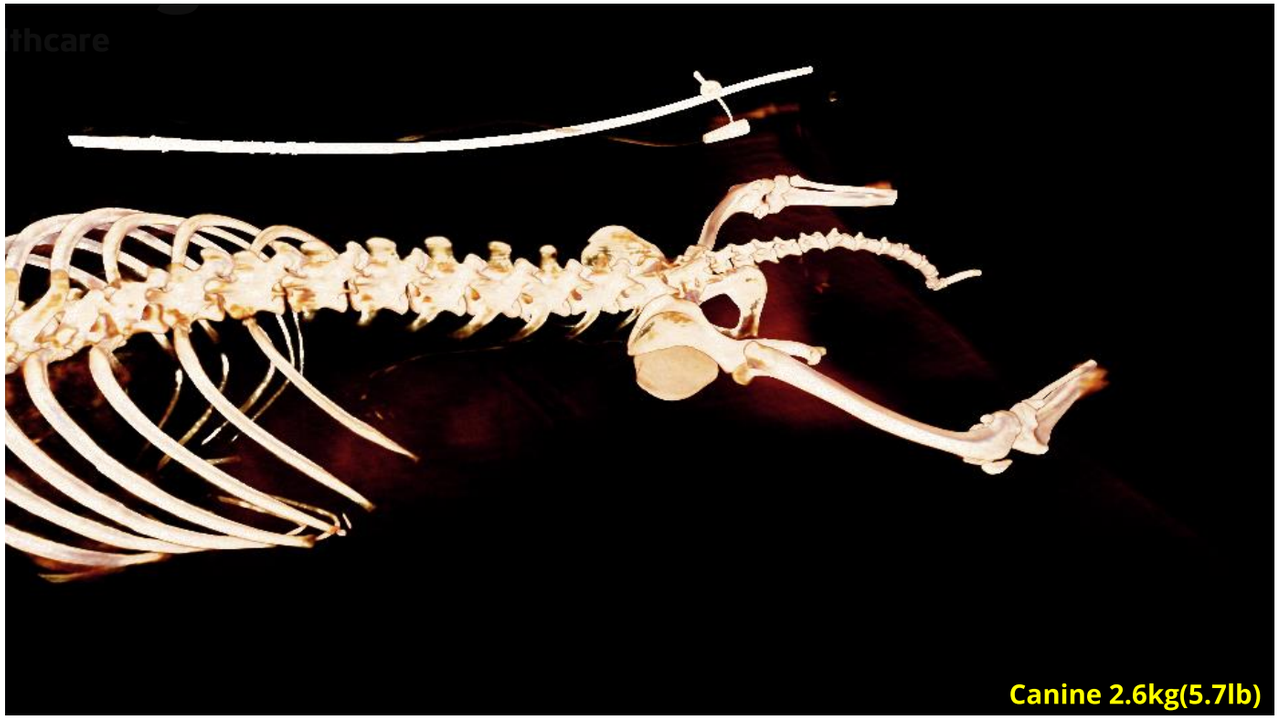


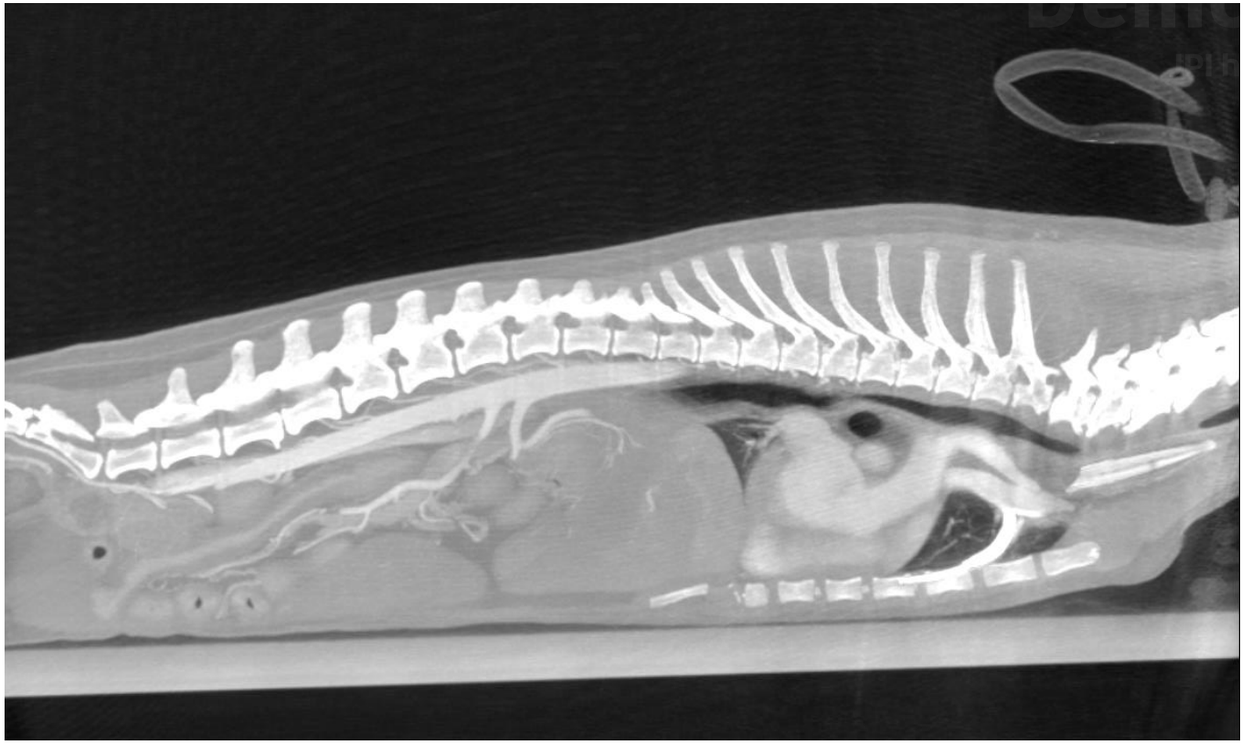


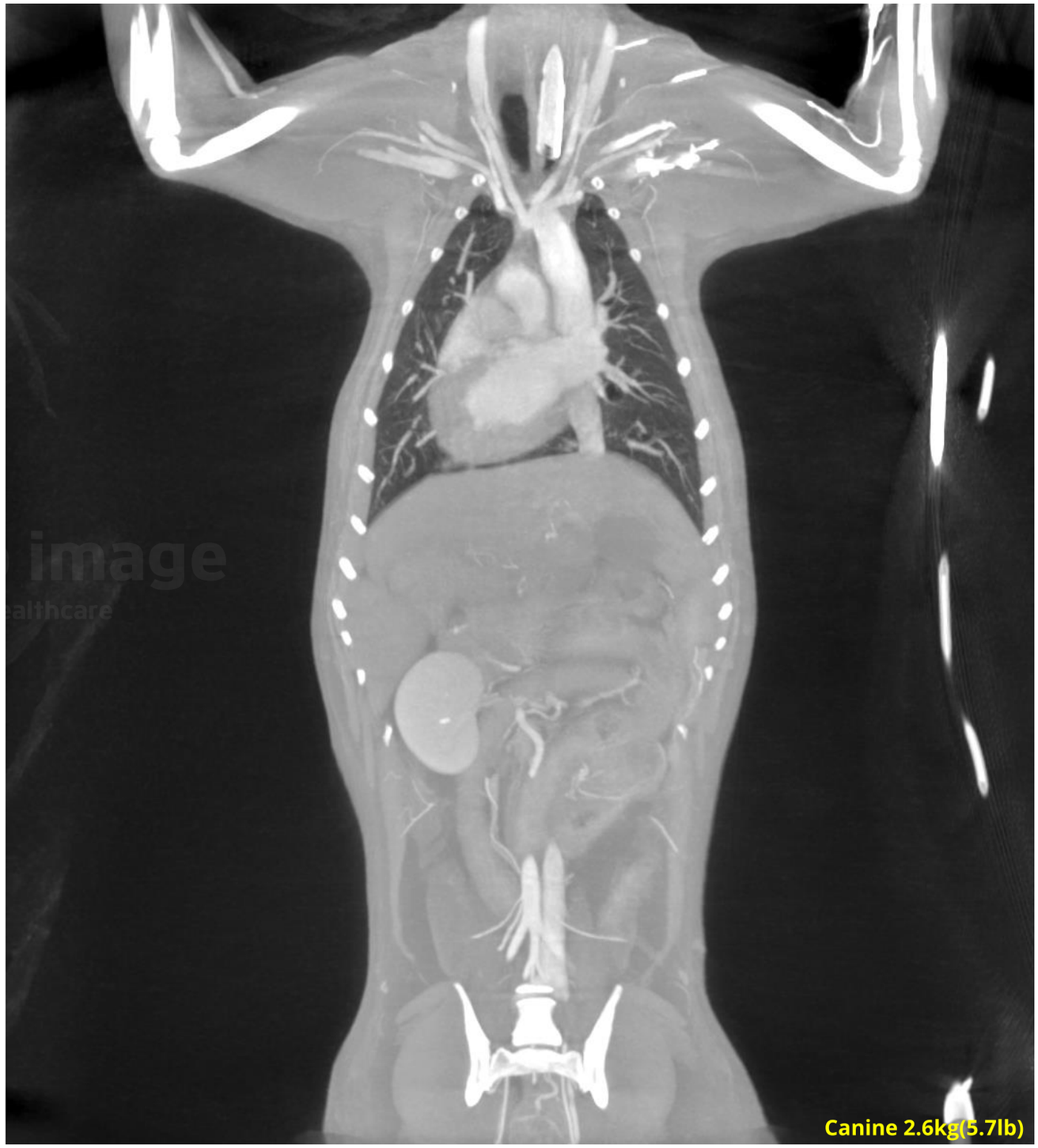


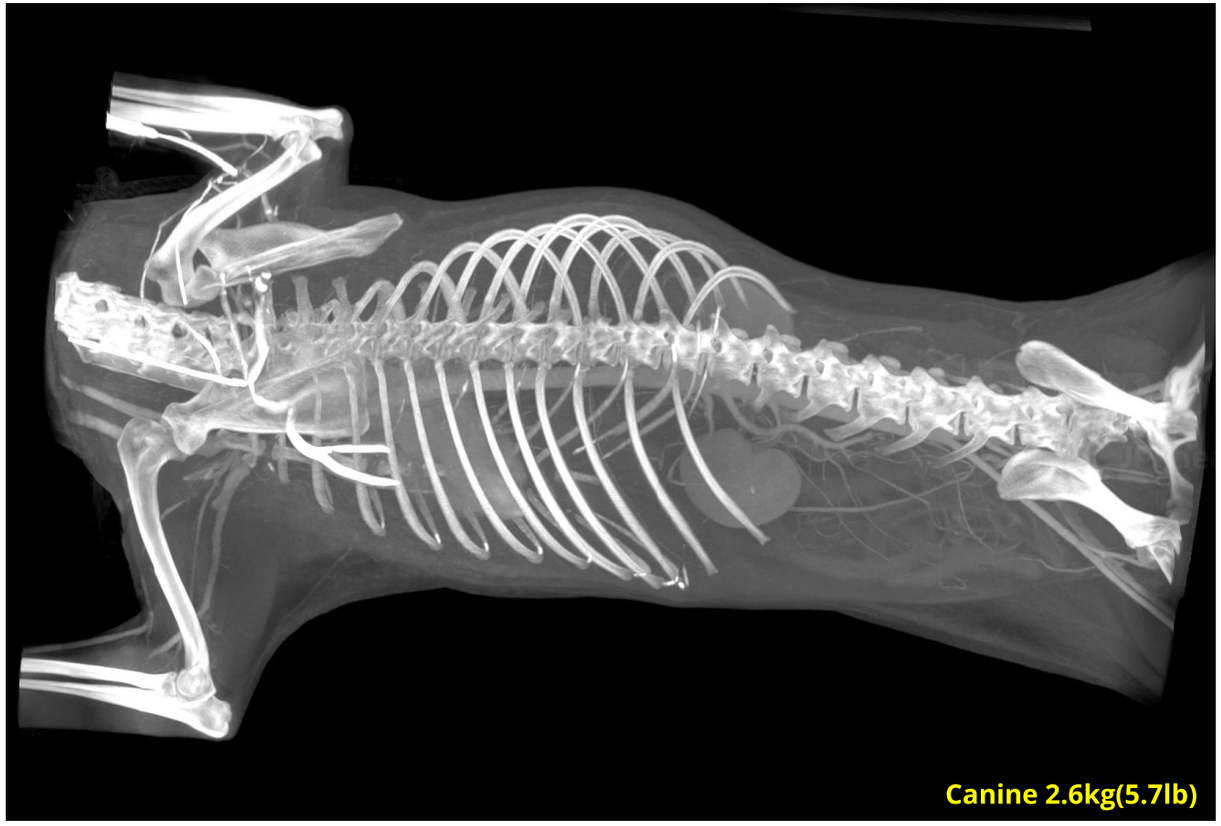
Demo image
JPI healthcare

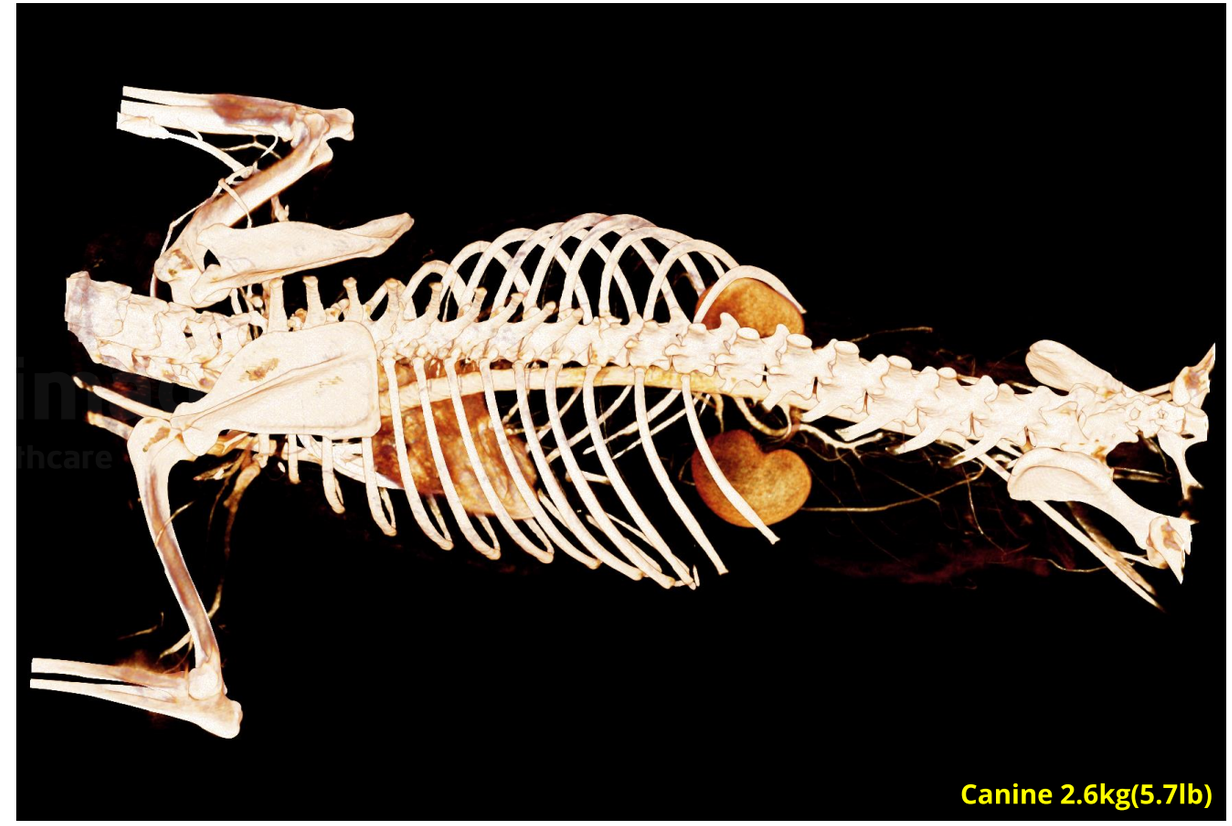


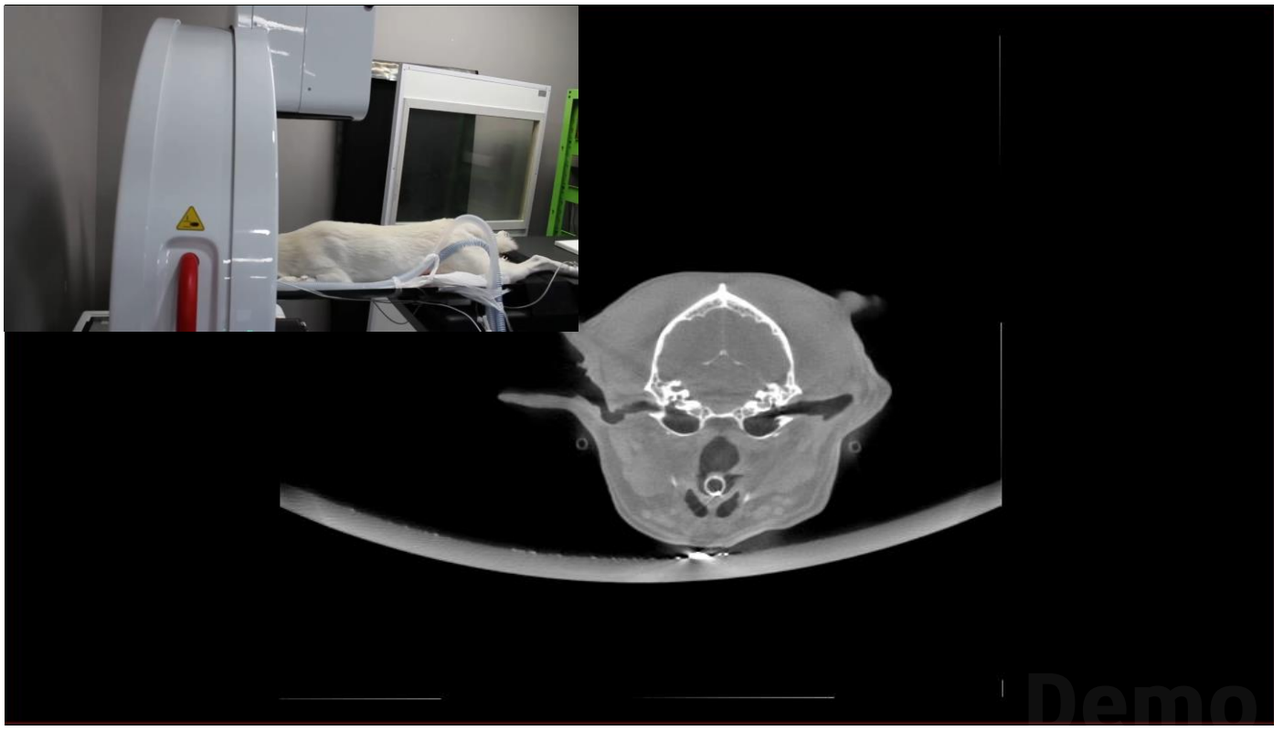

Canine 2.6kg(5.7lb)

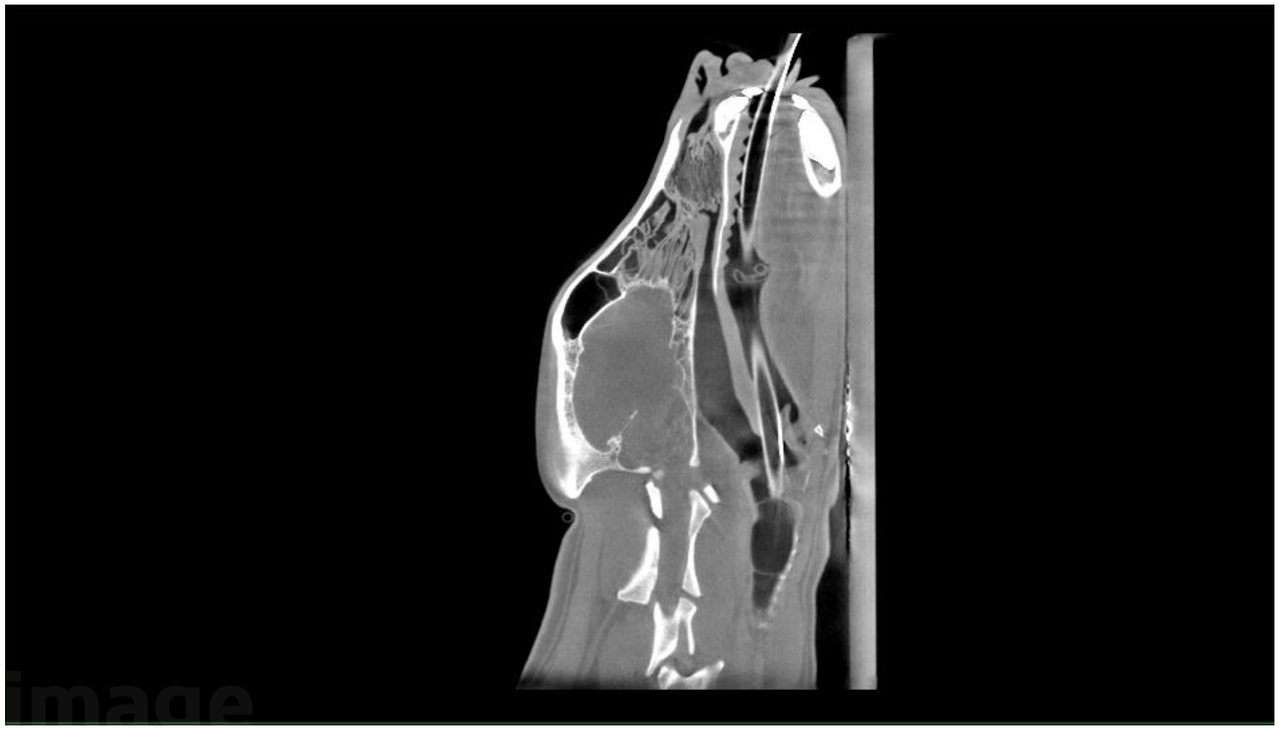



Canine 2.6kg(5.7lb)

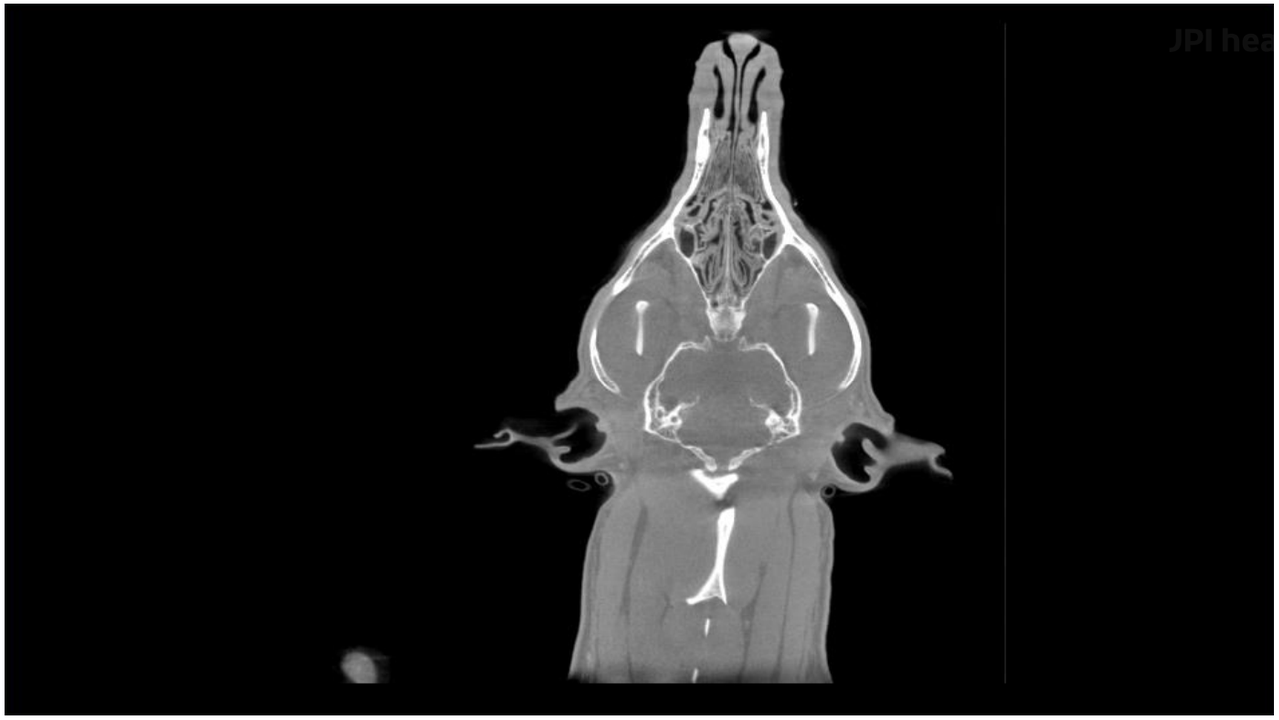

Canine 2.6kg(5.7lb)

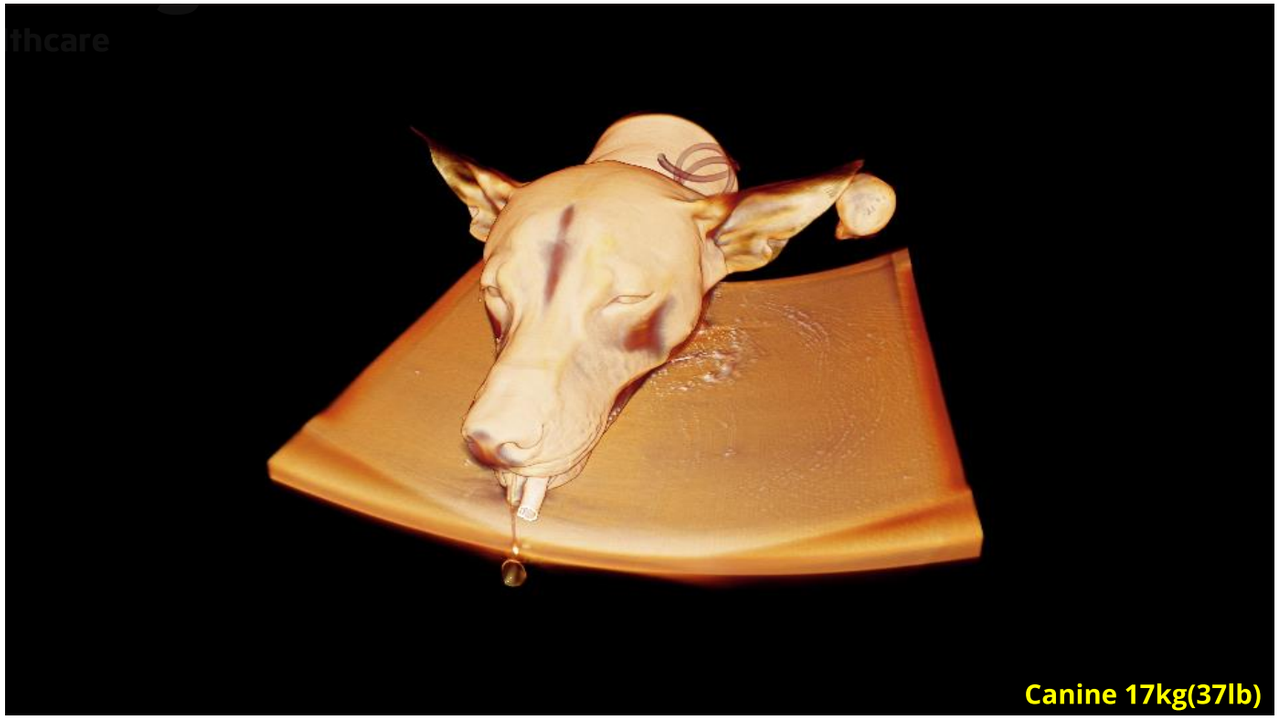

Canine 2.6kg(5.7lb)



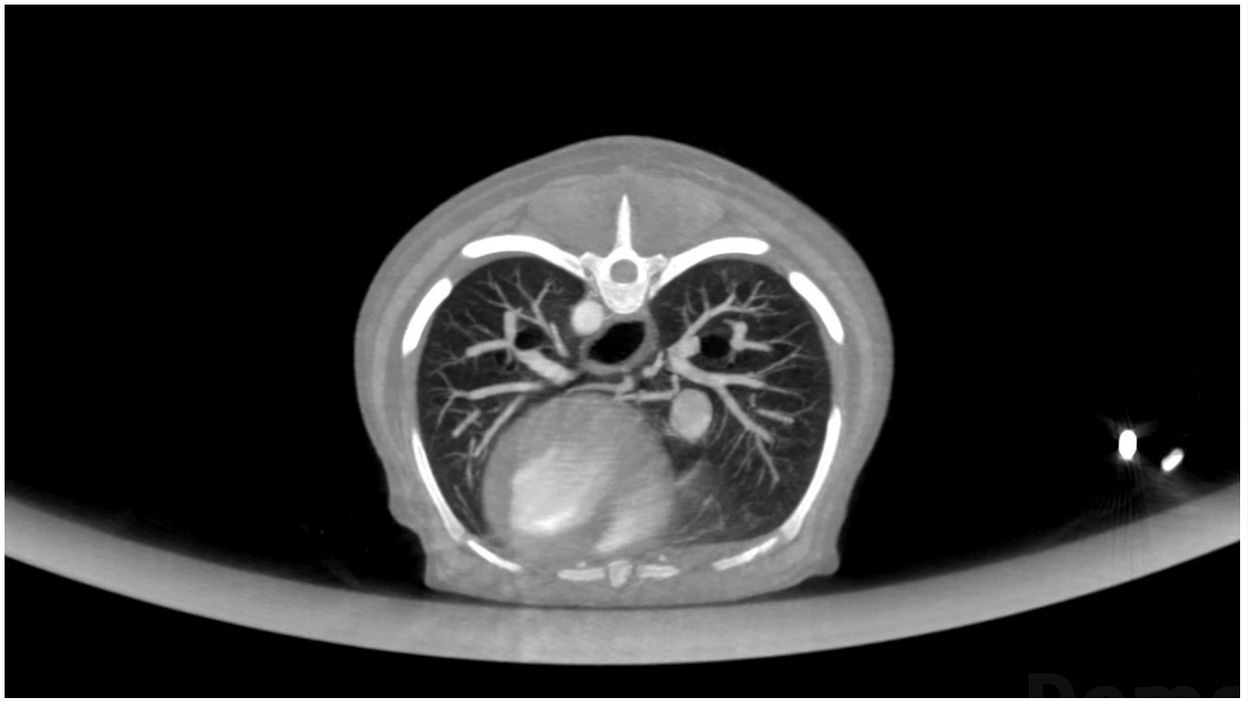


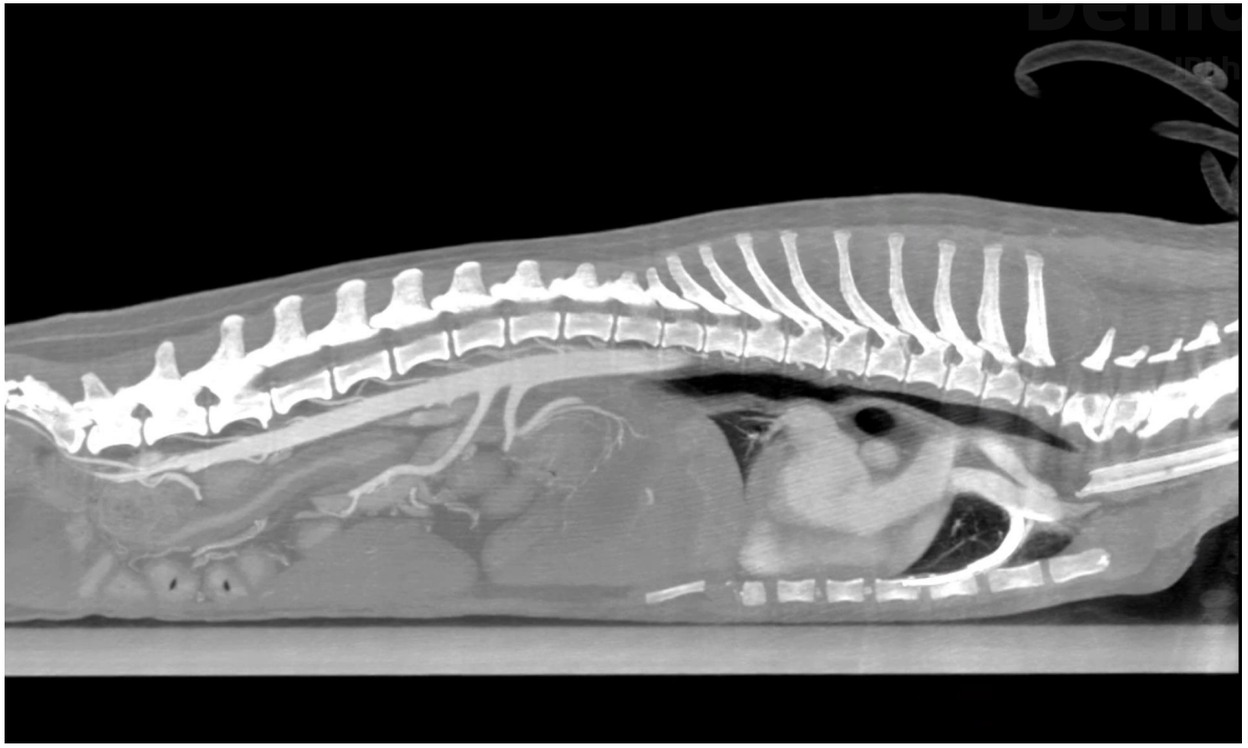
Demo image
JPI healthcare





Canine 17kg(37lb)





Canine 2.6kg(5.7lb)

Thank You/

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