parameters of reaction and flow of materials from outside of the hot cell. The
starting material was norverapamil, dissolved in it in acetone. The [11C]
CH3I bubbled (50 mL/min flow) in this solvent. The efficiency of the reaction
was enhanced by using aluminium oxide/potassium-fluoride catalyst. The
reaction mixture was heated for 10 minutes, when the reaction took place,
then the reaction mixture was diluted with HPLC eluent and filtered from
the catalyst. The generated [11C]verapamil was separated on preparative
HPLC from other impurities and from the precursor. The collected fractions
of [11C]verapamil was diluted with water and adsorbed on a C18 column. For
equilibration small volume of ethanol was used to get concentrated solution, what
later can be diluted with saline for biological investigation.

Results: In receptor binding studies the specific activity of [11C]verapamil
is very important. In our experiments 100 ± 20 GBq/mmol was achieved,
with the radiochemical purity of more than 98%. We had got large problem
from the precursor, because it can reduce the accumulation of radioactive
verapamil in cells. We had optimized the separation what resulted of greater purity of the product

P26

OVERWEIGHT IN DOGS AND IN HUMANS — WHAT DIFFERS?

L. Müller1, E. Kolla2, Zs. Váray1, J. Tóthczy3, L. Balogh3, Z. Postényi3,
V. Háas3, A. Polya3, T. Márton1, I. Garai1, G. László5, M. Baikkey2,
Gy. Tencsényi3, T. Nagy2, J. Szabó2, Gy. Jánoší1, G. Jánoší1, R. Tóth1

1Veterinary Faculty, Sz. I. University, Budapest, Hungary
2National Research Inst. for Radiobiology and Radiohygiene, Budapest,
Hungary
3Department of Nuclear Medicine, University of Debrecen, Debrecen,
Hungary
4Radiopharmacy Ltd., Budapest, Hungary

Background: Obesity is an enraging problem companion animals (dogs,
cats) too similarly to the tendency observed in human population. Nowad-
days veterinary clinics take a special emphasis to reach an early diagno-
sis and preced in obesity diseases and metabolic disorders that develop as
consequences. Parallely investigators often use the canine model in
obes research based on genetic and physiological similarities. As in human
beings also in dogs could be important to develop novel methods for meas-
uring type- and regionality obesitas, subcutaneous and visceral distribution
of fat deposits. Not even in human obees patients is clear the distribution of
fat in different deposits and their correlations to many metabolic disorders.
However references are not perfectly consistent in the task, several data
showed that quantity of abdominal fat deposits correlate closer with insulin
resistance and insulin-resistance based metabolic disorders while subcutan-
et fat sizes better correlate with serum leptin levels. In this present study we
goaled to work-out a method available to examine the regional distribution
of fat deposits and their metabolic effects in canine obees patients.

Material and methods: Suspected oncological patients altogether 25
dogs were undertaken PET/CT whole body examinations and blood sampling
for measuring the metabolic status. Following earlier published data we
also choosed 2nd-3rd lumbar transversal slices to measure the subcutan fat
diameter calculated the subcutan visceral fat deposit rates too. Metabolic
status was evaluated as follows: after 12 hours fasten glucose, insulin-, thy-
roxin-, cortisol- and leptin levels were measured from serum samples. HOMA
index was choosed to evaluate the level of insulin resistivity in our patients.

Results: Our data showed basic differences in regionality of fat deposits.
Canine obees patients had either visceral or subcutan type-deposits where
major part of fat stayed. Serum leptin levels varied between 0.4–20.1 ng/mL.
Elevated serum leptin levels correlated closely with visceral fat deposit quanti-
ties but not with subcutan ones. HOMA-IR index did not showed correlation
with regionality neither with total fat quantities. It is clear that dogs having
visceral-type fat deposits insulin sensitivity is worse (HOMA-IR: R 0.15–2.42),
and insulin level is higher (0.66–11.65 μU/mL). This tendency is higher (however
not significantly) if we measure subcutaneous deposit at 3rd lumbar transver-
sal images. Similar tendency (significant!) is seen in thyroxin levels (3.19–250
nmol/l) but in cortisol-, and leptin levels there is no correlation.

Conclusion: Further histopathological work to measure the fat cell sizes and
leptin-receptor immunohistochemistry and blood chemistry is still ongoing
for better understand the effects of fat deposit sizes and the regionality
in dogs.

Acknowledgements: Scientific work was supported by several national
funds (OTKA-68376, JEDIONK), KMK-P-1.1-08/1-2008-0017, GOP-1.1-01-
09/1-2010-0107) and international projects (IAEA-CRP EMIL NoE).

P27

INITIAL EXPERIENCES WITH MEDICHECK Q.C. KIT

T. Pásztor

Kényez Hospital, Debrecen, Hungary

Background: The aim of the study was to look over the experiences with
application of MEDICHECK Q.C. kit.

Material and methods: In the department prepared radiopharmaceuti-
cals were by a preliminary determined system examined.

Results: The examined radio pharmaceuticals generally fit requirements.

Conclusion: The MEDICHECK Q.C. kit seems an adequate tool in quality
control of radio pharmaceuticals.

P28

RADIOGUIDED LYMPH NODE BIOPSY OF A CHEMORESISTANT LYMPH NODE DETECTED ON INTERIM FDG PET-CT IN HODGKIN LYMPHOMA

T. Gyırke1, A. Kollar2, G. Bottik3, A. Szepsz1, I. Bodó1, T. Masszi2, V. Bérczi4, I. Garai4

1Department of Nuclear Medicine, Semmelweis University, Budapest, Hungary
2Department of Diagnostic Radiology and Oncotherapy, Semmelweis
University, Budapest, Hungary
3Department of Dermatology, Dermatocology and Venerology,
Semmelweis University, Budapest, Hungary
411th Department of Pathology and Experimental Cancer Research,
Budapest, Hungary
5Department of Haematology and Stem Cell Transplantation, St. István
and St. László Hospital of Budapest, Budapest, Hungary
6Scanomed Ltd., Budapest, Hungary

Background: Interim FDG PET has high prognostic value in Hodgkin
lymphoma and can detect early inadequate therapy response. Positive
findings may require histological clarification for further therapy guidance.
However nonpalpable lesions may be difficult to localise intraoperatively.
This case report presents the successful surgical biopsy with the Rad-
ioguided Occult Lesion Localisation (ROLL) technique of a chemoresistant
lymph node detected by interim FDG PET-CT.

Material and methods: A 32 years old male patient was diagnosed with
nodular lymphocyte-predominant Hodgkin lymphoma. Staging FDG PET-CT
detected large right axillary lymph node conorganic and splenic manifestion. Interim PET-CT following two cycles of ABVD
chemotherapy revealed good metabolic response with the exception of
one single axillary lymph node. A second interim PET-CT after two
further cycles had similar result. A biopsy of the metabolically active
nonpalpable lymph node was performed by using the ROLL technique
with ultrasound guidance.

Results: The lymph node was successfully removed with a minimal invasive
procedure. Histological evaluation revealed a transformation into T cell rich
diffuse large B cell lymphoma. Based on this finding a relevant therapy
change was introduced.

Conclusion: The ROLL technique is an appropriate method for the biopsy
of chemoresistant non palpable lymph nodes suspected by interim PET-CT.
The anatomic information given by the CT part of the combined PET-CT
method has great relevance for a multimodality approach i.e. ultrasound
guidance during ROLL procedure.