Towards a tailored therapeutic approach for vulvar cancer patients

Kortekaas, K.E.

LIST OF ABBREVIATIONS

ACT	adoptive cell therapy
AJCC	American joint committee on cancer
ALA	5-aminolevulinic acid
Anti-CTLA-4	anti-cytotoxic T-lymphocyte-associated protein 4
Anti-PD1	anti-programmed cell death protein 1
APC	antigen-presenting cell
BCC	basal cell carcinoma
BSA	bovine serum albumin
CAR T cell	chimeric antigen receptor T cells
CBA	cytometric bead array
CIN	cervical intraepithelial neoplasia
CSF1R	colony stimulating factor 1 receptor
CTLA-4	cytotoxic T-lymphocyte-associated protein 4
CxCa	cervical squamous cell carcinoma
DAMPs	danger-associated molecular patterns
DC	dendritic cell
DeVIL	differentiated exophytic vulvar intraepithelial lesion
DN	double-negative
DoI	depth of invasion
DP	double-positive
dVIN	differentiated type vulvar intraepithelial neoplasia
FCS	fetal calf serum
FDA	food and drug administration
FFPE	formalin-fixed paraffin embedded
FIGO	Federation of Gynecology and Obstetrics
Gal-3	galactin-3
GEP	gene expression profile
GrB	granzyme B
HE	haematoxylin and eosin
HIV	human immmunodeficiency virus
HLA	human leukocyte antigen
HLA-E	human leukocyte antigen type E
HPV	human papillomavirus
HPVneg VSCC	human papilloma virus negative VSCC
HPVneg/p53mut VSCC	human papilloma virus negative vulvar squamous cell carcinoma with p53 mutant expression
HPVneg/p53wt VSCC	human papilloma virus negative vulvar squamous cell carcinoma with p53 wildtype expression

HPVpos VSCC	human papilloma virus positive vulvar squamous cell carcinoma
HR	hazard ratio
hrHPV	high-risk HPV
HVG	highly-variable genes
IDO	indoleamine 2,3-dioxygenase
IHC	immunohistochemistry
IFN-ɣ	interferon-gamma
IFN-α	interferon-alpha
IL-2	interleukin-2
IL-4	interleukin-4
IL-5	interleukin-5
IL-10	interleukin-10
IL-12	interleukin-12
LAG-3	lymphocyte-activation gene 3
LC	langerhans cell
LOH	loss of heterozygosity
LS	lichen sclerosus
LVSI	lymphovascular space invasion
MAGEA1	melanoma-associated antigen 1
MAGEA4	melanoma-associated antigen 4
MDSC	myeloid-derived suppressor cell
MHC	major histocompatibility complex
MoAbs	monoclonal antibodies
MPSM	minimal peripheral surgical margin
M1 macrophage	macrophage type 1
M2 macrophage	macrophage type 2
NeoAg	neoantigen
NGS	next genome sequencing
NK cell	natural killer cell
NSCLC	non-small cell lung cancer
OPSCC	oropharyngeal squamous cell carcinoma
OS	overall survival
PBMC	peripheral blood mononuclear cells
PBS	phosphate buffered saline
PD-1	programmed death 1
PD-L1	programmed death ligand 1
PDT	photodynamic therapy
PHA	phytohemagglutinin
p53wt	p53 wildtype

p53mut	p53 mutant
RANKL	receptor activator NF-kB ligand
RCT	randomized controlled trial
RER	relative excess risk
RFP	recurrence-free period
ROC	receiver operating characteristics
RS	relative survival
SLN	sentinel lymph node
SN	single-negative
SP	single-posiitve
STING	stimulator of interferon genes
TAA	tumor-associated antigen
TAMs	tumor-associated macrophages
Tbet	T-box expressed in T cells
Tcm	central memory T cell
TCR	T cell receptor
Tem	effector memory T cell
Temra	effector memory RA+ T cells
TGF-β	transforming growth factor beta
Th1	T helper 1
Th2	T helper 2
TIL	tumor-infiltrating lymphocyte
TIM-3	T cell immunoglobulin and mucin domain containing-3
TLR	toll-like receptor
TME	tumor microenvironment
TNF-α	tumor necrosis factor alpha
TP53	tumor protein p53
Treg	regulatory T cell
TSA	tumor specific antigens
T-VEC	talimogene laherparepvec
uVIN	usual type vulvar intraepithelial neoplasia
VAAD	vulvar acanthosis with altered differentiation
VAF	variant allele frequency
VEGF	vascular endothelial growth factor
vHSIL	vulvar high grade squamous intraepithelial lesion
VISTA	V-domain Ig suppressor of T cell activation
VSCC	vulvar squamous cell carcinoma
VUS	variant of unknown significance
WLE	wide local excision

AUTHOR AFFILIATIONS

Department of Gynecology
Leiden University Medical Center, Leiden, the Netherlands
L.S. Nooij
M. van der Tol
M.I.E. van Poelgeest
K.E. Kortekaas

Department of Medical Oncology
Leiden University Medical Center, Leiden, the Netherlands
J.J. van Ham
I. Ehsan
L. Tas
Z. Abdulrahman
S.J.A.M. Santegoets
M.J.P. Welters
S.H. van der Burg

Department of Pathology
Leiden University Medical Center, Leiden, the Netherlands
N. Solleveld-Westerink
T. Bosse
V.T.H.B.M. Smit

Department of Oropharyngeal and Head and Neck Surgery
Leiden University Medical Center, Leiden, the Netherlands
S.I. van Egmond

Department of Medical Oncology & Surgery
Leiden University Medical Center, Leiden, the Netherlands
E. Bastiaannet

Department of Radiotherapy
Leiden University Medical Center, Leiden, the Netherlands
C.L. Creutzberg

Department of Gynecology
Maastricht UMC, Maastricht, the Netherlands
P.J. de Vos van Steenwijk

Department of Gynecology
Erasmus MC Cancer Institute, Rotterdam, the Netherlands
H.C. van Doorn

Department of Pathology
Erasmus MC Cancer Institute, Rotterdam, the Netherlands
P.C. Ewing-Graham
K. Akdeniz
D.A.M. Mustafa

Department of Pathology
Ghent University Hospital, Ghent, Belgium
K. van de Vijver
A.S. van Rompuy

Department of Pathology and Laboratory Medicine or Anatomical Pathology
University of British Colombia, Vancouver, Canada
B.C. Gilks
B. Tessier-Cloutier
E. Thompson
J. Pors
J. Chen
H. Ho
D. Huntsman
L.N. Hoang

Contextual Genomics
University of British Colombia, Vancouver, Canada
L. Prentice
M. McConechy

Genetic Pathology Evaluation Center (GPEC)
University of Britisch Colombia, Vancouver, Canada
C. Chow

Department of Gynecology and Obstetrics
University of British Columbia, Vancouver, Canada
L. Proctor
J.N. McAlpine

Department of Cellular Pathology
Princess Alexandra Hospital, Harlow, United Kingdom
S. Arif

Department of Cellular Pathology
St. James's University Hospital, London, United Kingdom
R. Arora

Department of Cellular Pathology
Barts Health NHS Trust, London, United Kingdom
A. Faruqi
N. Singh

Department of Cellular Pathology
Birmingham Women's Hospital, Birmingham, United Kingdom
A. Ganesan
B. Tanchel
J. Vella

Department of Pathology
Airedale General Hospital, Keighley, United Kingdom
N.R. Griffin

Department of Cellular Pathology
Stepping Hill Hospital, Stockport, United Kingdom
R. Hale

Department of Histopathology
Manor Hospital, Walsall, United Kingdom
Y.L. Hock

Breast & Perinatal Pathology
University Hospital Leipzig, Leipzig, Germany
L.C. Horn

Department of Pathology
Belfast Health and Social Care Trust, Belfast, United Kingdom
W. Glenn McCluggage

Department of Cellular Pathology
Royal United Hospital, Bath, United Kingdom
P. Mukonoweshuro

Department of Pathology
Memorial Sloan Kettering Cancer Center, New York, United States of America
K.J. Park

Department of Pathology
Cambridge University Hospital NHS Trust, Cambridge, United Kingdom
B. Rous

Department of Pathology
Royal Derby Hospital, Derby, United Kingdom
G. van Schalkwyk

Department of Histopathology
The Royal Sussex County Hospital, Brighton, United Kingdom
M. Vergine

Department of Bioinformatics
Inssbruck Medical University, Inssbruck, Austria
G. Sturm
F. Finotello
Z. Trajanoski

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CURRICULUM VITAE

Kim Esmée Kortekaas was born on the 24th of November 1988 in Leiderdorp, and grew up in Zoeterwoude. She graduated in 2006 from secondary school at the Stedelijk Gymnasium in Leiden, and studied Medicine at the Leiden University. During the early days of her study, she was introduced to the field of research at the department of Vascular Surgery at the Leiden University Medical Center (LUMC) under supervision of dr. J.H.N. Lindeman.

Kim decided to attend a pre-master in Biomedical Sciences, and continued her research project in vascular surgery at Stanford University, California, USA. In 2013 she obtained her medical and biomedical degree (cum laude). After one-year experience in basic research with induced pluripotent stem cells, she started working as a physician in Obstetrics and Gynecology at the Bronovo Hospital. Hereafter, Kim started her residency in Obstetrics and Gynecology at the Haaglanden Medical Center, the Hague (dr. M.J. Kagie).

Because Kim is intrigued by turning science into clinical applications, she chose to study the role of the tumor microenvironment in vulvar carcinoma. She committed to a three-year fulltime PhD project at the department of Medical Oncology (prof. dr. S.H. van der Burg), Gynecology (dr. M.I.E. van Poelgeest), and Pathology (dr. T. Bosse) at the LUMC. She presented the results of this research at several national and international conferences, and became fellow of the International Society for the study of Vulvovaginal Disease (ISSVD). During her PhD project she started her training as a registered immunologist (SMWBO) and applied for a University Teaching Qualification (BKO). Since July 2020, Kim continued her Obstetrics & Gynecology residency training at the LUMC (dr. M. Sueters).

Gratius animus est una virtus non solum maxima, sed etiam mater virtutum omnium reliquaram.

A thankful heart is not only the greatest virtue, but the mother of all other virtues. – Marcus Tullius Cicero 106-43 B.C.