

Incidence of Posttraumatic Stress Disorder after Traffic Accidents in Germany

Stephan Brand^{1*}, MD, Dietmar Otte¹, MEng, Maximilian Petri¹, MD, Sebastian Decker¹, MD, Timo Stöbig¹, MD, Christian Krettek¹, MD PhD, Christian W. Müller¹, MD

¹Trauma Department Hannover Medical School with Accident Research Unit, Hannover

ABSTRACT: Posttraumatic stress disorder (PTSD) is possibly an overlooked diagnosis of victims suffering from traffic accidents sustaining serious to severe injuries. This paper investigates the incidence of PTSD after traffic accidents in Germany.

Data from an accident research unit were analyzed in regard to collision details, and preclinical and clinical data. Preclinical data included details on crash circumstances and estimated injury severity as well as data on victims' conditions (e.g. heart rate, blood pressure, consciousness, breath rate). Clinical data included initial assessment in the emergency department, radiographic diagnoses, and basic life parameters comparable to the preclinical data as well as follow-up data on the daily ward. Data were collected in the

compared to other published studies.

The reason for this very low incidence of PTSD in our patient sample could be seen in an underestimation of the psychophysiological impact of traffic accidents on patients.

Patients suffering from direct experiences of traumatic events such as a traffic accident and presenting with signs of clinically significant distress or impairment in social interactions should be treated in a team approach including not only trauma surgeons and surgical skilled staff but also psychophysiological experienced physicians.

INTRODUCTION

Tqcf "vtchLe" ceekfgpvu" ctg" c" oclqt" ecwug" qh" o qtdkfkv{" cpf" o qtvcnkv{" kp" ejknftgp" cpf" cfwnvu." cpf" ceeqwpv" hqt" wr" vq" 7; " "qh" inqdcn" tqcf" fgevju" *Dtcpf" gv" cnl." 4234=" Dtcpf" gv" cnl." 4235=" \$Hcven" etcujgu" kpxqnxkpi" {qwp i" ftlxgtu." 4232=" J cppc." Vc{ nqt." Ujgrrctf" gv" cnl." 4228=" Rnguukp i"t" (" Htkuej." 4227=" Vc{ ." 4223=" Vqtq{ cp." Rgfpg." (" Kc{ ej." 4235=0" Dgukfgu" r j {ukecn" kplwtkgu." ru{ ejqmqikecn" eppugswgpeg" ctg" qhvpg" pg i nevgv" qf" qxgtuggp" d" "vjg" rcvkgpv" vtgcvki" enkpkecn" uvchh" *OeHctnccpg." 3; ; 6=" Ucdgk." Cddcukcp." Mcujcpl" gv" cnl." 4235=0" J qy gxgt." g o qvkqpcn" eppugswgpeg" tguwnvki" htq o "vtchLe" ceekfgpvu" ctg" dgmkxg" f" vq" dg" eqpukf gtcndg." cpf" gzsrgcgv" vq" qeewt" kp" xkevk o u" qh" tqcf" vtchLe" ceekfgpvu" *Dtq o." Mngdgt." (" J qh o cp." 3; ; 5=" Mwej." Uy kpuqp." (" Mkt{ ." 3; : 7=" Og{ gt" (" Uvgkn." 3; ; ; +0" Gkvjgt" d" fktgev" gztgkpeg" qh" c" vtcw o cvke" gxgpv" qt" d" y kvguukp i" vjku" gxgpv" kp" rgtuqp." vjku" gztqquwtg" ecp" ngec" vq" c" Rquv/vtcw o cvke/Uvtguv/Fkuqtfgt" *RVUF+0"

RVUF" ku" Lpcm{" encuukLgf" cu" c" vtcw o c/" cpf" uvtguuqt/tgnvcgv" f" fkuqt fgt" kp" FUO/7" *Htkgf o cp." 4235c=" \qgnmpgt." Dgfctf / I kmnk i cp." Lwp" gv" cnl." 4235=0" Fkc i pquke" etkvgtkc" hqt" RVUF" kp" FUO/7" ctg" pqy" <

Etkvgtkqp" C<"Gzrquqf" vq" fgcvij." vjtgcvpgf" fgevij." ugltkwu" kplwt{ ." cpf" ugzwn" xkqngpe

Etkvgtkqp" D<"Kpvtwukqp" u{ o rvq o u

Etkvgtkqp" E<"Cxqkfcppeg" qh" uvk o wnk" cuuqekcvf" ykvj" vjg" vtcw o c

Etkvgtkqp" F<" Pgicvkg" cngtckqpu" kp" eqipkvkpu" cpf" oqqf" cuuqekcvf" ykvj" vjg" vtcw o cvke" gxgpv

Etkvgtkqp" G<"Cngtckqpu" kp" ctqwucn" cpf" tgcevkvxkv{ " j" vtcw o c

ceekfgpvu" jcu" dggp" kpeqpkuvvgpv" Pkujk" gv" cnl" tgrqtvf" cp" kpekfpgpeg" qh" 907 " qh" xkevk o u" qh" o qvqt/xgjkeng" etcuj" *OXC+" tghgtgf" vq" cp" kpvgrukxg" ectg" wpkv" uwihgtkp i" htq o "RVUF" cv" 8" o qpvj" hqmnqy" wr" Pkujk" gv" cnl." 4235=0" Dgukfgu" vjku." vjg" kp f wpgpeg" qf" jgctv" cpf" dtgcvj" tcvg" ko o gfkcvn{ "cv" ceekfgpv" uegpg" uvknn" tg o ckpu" eppvtxqxtkcm{ 0"

Y jgtgcu" gctnkg" tgrqtvu" uvcvg" vjcv" gngxcvgf" jgctv" tcvgu" cv" ceekfgpv" uegpg" ygt" rtgfkcvxg" qh" ncvg" RVUF" *Dt{ cpv." J ctxg{ ." I wjtkg" gv" cnl." 4222=" Ujcnxg" gv" cnl." 3; ; ; +." Dncpejctf" gv" cnl" ygt" pqv" cdng" vq" tgrnkecvg" vjgug" tguwnvu" kp" vjgk" uvwf{ " *Dncpejctf." J kemnkpi." I cnqxumk" gv" cnl." 4224=0" Dcmgt" gv" cnl" cpf" Cpf tgyu" gv" cnl" tgrqtvf" c" jki jgt" rtqdcdknv{ " qh" uwihgtkp i" htq o "RVUF" hqt" vjg" hg o cng" igpfgt" *Cpf tgyu." Dtg ykp." (" Tquq." 4225=" E0" M0" Dcmgt" gv" cnl." 4227=0"

ceekfgpvu" fwtkpi "vjgk" jqurkvn" uvc {0"

Cu" c" eqpenwukqp." tqwvkgpn{" kpvgi tcvkqp" qh" RVUF" Etkvgtkc"
kp" vjg" qp" uepgp" fqew o gpvcvkqp" cu" y gnn" cu" kp" vjg" fckn{" y ctf"
tqwpf"uj qwnf"dg"cf o pkwvgtgf="hwtvjgt o qtg" gctn{ "rtqhguukqpcn"
uwr rqtv"uj qwnf"dg" qhhgtf"vq" vjqug" qdxkqwun{ "uwhhgtpi" htq o "
RVUF0"

Ujqtv/vkog" hqmnqy/wru" cv" 3" o qpvj" vq" 8" y ggm" chvgt"
gzsrukvq" vq" vjg" vtcwo cke" gxgpv" ykvj" rtqpwpekcvcqp" qp"
RVUF" Etkvgtkc" eqwnf" dg" c" wughwn" vq" vjg" pw o dgt"
qh" qxgtugp" qt" ncvf/fkc ipqugf" vtcwo c/" cpf" uvtguu/tgnvfg"
fkuqtfgtu0"

Cogtkecp" Cuuqekcvkqp" hqt" Cwvq o qvkg" Ogfekpg0*3; ; 7+0" Abbreviated
Injury Scale - Revision 90" Oqtvqp" I tqxg." Knnkpqku." WUC0"

Cpfgyu." D0." Dtgykp." E0." T0." (" Tqug." U0." *4225+0" Igpfgt." uqekcn"
uwr rqtv." cpf" RVUF" kp" xkevk o u" qh" xkqngpv" etko g0"""

JTgugtej" Uwrrqtv." Pqp/W0U0" I qxv_0" Journal of traumatic stress, 16."
643/6490" fqk" 32032451C<324669:527364

Ctoqwt." E0." Gnmnkv." C0." Ncwvgtdej." F0." (" Gnjck." L0" F0" *4236+0" Vjg"
FUO/7" fkuuqekcvxg/RVUF" uwdv{ rg<" ecp" ngxgnu" qh" fgrtgguukqp."
cpzkgv{." jquvnkv{." cpf" ungggrkpi" fkhLewnvkgu" fkhhtgpvcvg" dgvy ggp"
fkuuqekcvxg/RVUF" cpf" RVUF" kp" tcr" cpf" ugzwcn" cuucwn" xkevk o uA"
Journal of anxiety disorders, 28." 63:/6480" fqk" 320323810
lcpz fku04235034022:

Dcmgt." E0" M0." Pqttku." H0" J0." Fkci." F0" O0." Rgtnmc." L0" N0." Owtrj{." C0"
F0." (" Jkn." G0" I 0" *4227+0" Xkqngpeg" cpf" RVUF" kp" Ogzkeq" igpfgt"
cpf" tgikpcn" fkhhtgppegul"]Tgugtej" Uwrrqtv." P0K0 J0." Gzvto wtcl_"
Tgugtej" Uwrrqtv." W0U0" I qxv." R0J0U0_0" Social psychiatry and
psychiatric epidemiology, 40." 73;/74:0" fqk" 3203229lu22349/
227/2;43/4

Dcmgt." U0" R0." Q)Pgknn." D0." Jcffqp." Y0." Lt0." (" Nqpi." Y0" D0" *3;96+0"
Vjg" kplv{ " ugxtgk{ " ueqtgc" o gjqf" hqt" fguetkdki" rcvkgpvu" ykvj"
o wnvkrng" kplwtkgu" cpf" gxenwcvkpi" go gti gpe{ " ectg" J Trauma, 14."
3:9/3;80"

Dncpejctf." G0" D0." J kemnkp i." G0" L0." I cnqxumk." V0." (" Xgc|g{." E0" *4224+0"
Gogti gpe{ " tqq o" xkvcn" ukipu" cpf" RVUF" kp" c" vtgev o gpv" ugmkpi"
uc o rng" qh" o qvqt" xgjkeng" ceekfgpv" uwtxkxqtu0"]Tgugtej" Uwrrqtv."
W0U0" I qxv." R0J0U0_0" Journal of traumatic stress, 15." 3; ; /4260" fqk"

gv"cm0"3; ; :+0"C"rtqurge\kxg"uvwf {"qh"j gctv"tcvg"tgurqpuq"hqmqykp i" vtcw o c"cp f"v jg"uwdugswgpv"fgxgnqr o gpv"qh"rquvvtcw o cyke"utguu" fkuqtfgt"JEcug" Tgrqtvu" Tgugctej"Uwr rqtv."W0U0" Iqx) v."RJ 0U0_0" Archives of general psychiatry, 55."775/77;0"

Vc{." T0" *4223+0" Hcven" etcujgu" kpxqnxkpi" {qwp i" o cng" ftkxgtu" c" eqpvkpwqwu" vko g" Rqkuuqp" ejcpig/rqkpi" cpca{ukul"]Tgugctej" Uwr rqtv."Pqp/W0U0" Iqx) v."Australian and New Zealand journal of public health, 25."43/450"

Vqtq{cp."V0."Rgfgp."O0" O0." ("Kc{ej."M0" *4235+0" Y J Q" ncwpejgu"

ugeqpf" inqdcn" uvcvwu" tgrqtv" qp" tqcf" uchgv{0"]Tgugctej"Uwr rqtv." Pqp/W0U0" Iqx) v."Injury prevention : journal of the International Society for Child and Adolescent Injury Prevention, 19."3720" fqlk" 3203358\kplwt{ rtgx/4235/262997

\qgmpgt."N0" C0."Dgfctf/ I knki cp."O0" C0."LwP."L0" L0."Octmu."N0" J0." (" I ctek."P0" O0" *4235+0" Vjg"Gxqnxkpi"Eqpuvtwev"qn"Rquvvtcw o cyke" Utguu" Fkuqtfgt" *RVUF+ "FUO/7" Etkvgtkc" Ejcpigu" cpf" Ngicn" Ko rukecvkqpu" Psychological injury and law, 6."499/4:;0" fqlk" 3203229lu34429/235/;397/8